J.-4698-8

THE LANCET.

No. 4265. Vol. CLXVIII. LONDON, SATURDAY, MAY 27, 1905. [Pp. 120+56.

CONTENTS.

AN ADDRESS entitled Clinical Illustrations of Angina Pectoris and Pseud-Angina. Delivered before the Brighton and Sussex Medico-Chirurgical Society on April 6th, by Sir W. H. BROADBENT, Bart., M. D. Lond., D. Sc. Leeds, F.R.S., Physician in Ordinary to His Majesty the King and to His Royal Highness the Prince of Wales 1399

LECTURE on the Treatment of Puerperal Infection. Delivered at the Medical Graduates' College and Polyclinic on March 8th, 1905, by FREDERICK J. MCCANN, M.D. Edin., F.R.C.S. Eng., M.R.C.P. Lond., Physician to In-patients, Samaritan Free Hospital for Women, London 1403

ORIGINAL ARTICLES.

A Report on 100 Consecutive Abdominal Hysterectomies (attended with Recovery), Performed at the Middlesex Hospital and the Chelsea Hospital for Women. By J. BLAND-SUTTON, F.R.C.S. Eng., Surgeon to the Chelsea Hospital for Women, and Surgeon to Out-patients, Middlesex Hospital.—*(Illustrated)* 1406

On Pneumococcal Sore-throat with Notes of a Fatal Case. By W. PASTEUR, M.D. Lond., F.R.C.P. Lond., Physician to the Middlesex Hospital; Consulting Physician to the North-Eastern Hospital for Children 1409

On the Resemblances Existing between the "Plimmer's Bodies" of Malignant Growths and Certain Normal Constituents of Reproductive Cells of Animals. By J. BRETLAND FARMER, F.R.S.; J. E. S. MOORE; and C. E. WALKER. *(Illustrated)* 1411

Acute Acritis. By WALTER BROADBENT, M.A., M.D. Cantab., M.R.C.P. Lond., Assistant Physician to the Sussex County Hospital 1412

A Regulating Chloroform Inhaler. By A. G. LEVY, M.D. Lond., Anæsthetist to Guy's Hospital; Assistant Anæsthetist, North-West London Hospital.—*(Illustrated)* 1413

Purulent Ophthalmia and the Treatment by Argyrol. By GEORGE E. WHERRY, M.C. Cantab., F.R.C.S. Eng., Surgeon to Addenbrooke's Hospital, Cambridge 1416

Is Man Poltophagic or Psomophagic? By HUBERT HIGGINS, M. A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., late Demonstrator of Anatomy to the University of Cambridge and Assistant Surgeon to Addenbrooke's Hospital, Cambridge. Part II. 1417

Visit of British Physicians and Surgeons to Paris: a Morning at Hôtel Dieu. By EDMUND OWEN, F.R.C.S. Eng., Surgeon to the French Hospital, London 1447

CLINICAL NOTES:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

Two Cases of Idiopathic General Cataract in Children Closely Related. By T. HUNTER, M.A., B.Sc., M.B., Ch.B.Glasg., Captain, I.M.S.; Civil Surgeon 1419

A Case of Suppuration of the Eyelid and Supra-orbital Region following Cauterisation of the Nasal Regions. By W. R. H. STEWART, F.R.C.S. Edin., M.R.C.S. Eng. 1420

A MIRROR OF HOSPITAL PRACTICE.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL: A Case of Psoriasis Diffusa, (Under the care of Dr. Wheelton Hind). — *Illustrated)* 1420

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL: A Case of Anthrax Successfully Treated with Sclavo's Serum. (Under the care of Mr. J. Lionel Stretton) 1420

MEDICAL SOCIETIES.

PATHOLOGICAL SOCIETY: Morbid Anatomy of Myasthenia Gravis. — Morbid Growth from Angora Ewe.—True Hermaphroditism in a Leghorn Fowl.—Congenital Malformation of Lower Extremities 1421

MEDICO-PSYCHOLOGICAL ASSOCIATION: The Use of Hypnotic Drugs in the Treatment of Insomnia. — Neurasthenia followed by Melancholia.—Tuberculosis in Asylums 1422

EPIDEMIOLOGICAL SOCIETY: The Significance of Phthisis Death-rates 1423

EDINBURGH MEDICO-CHIRURGICAL SOCIETY: Exhibition of Cases 1424

ULSTER MEDICAL SOCIETY: Surgical Cleanliness 1425

HARVEIAN SOCIETY: The Use of Roentgen Rays in the Diagnosis of Diseases of the Chest 1426

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN: Exhibition of Cases 1426

EDINBURGH OBSTETRICAL SOCIETY: Some Curiosities of Curetting 1427

PATHOLOGICAL SOCIETY OF MANCHESTER: Exhibition of Specimens 1427

REVIEWS AND NOTICES OF BOOKS.

A Modern Utopia. By H. G. Wells 1427

The Treatment of Diseases of the Eye. By Dr. Victor Hanke 1428

Atlas of Human Anatomy. By Werner Spalteholz 1429

Essentials of Nervous Diseases and Insanity. By John C. Shaw, M.D. Fourth Edition.. 1492

Surface Anatomy. By T. Gillman Moorhead, M.D. Dub., M.R.C.P. Irel. 1430

Chemistry in Daily Life. By Dr. Lassar-Cohn. Third Edition 1430

The Food Inspector's Handbook. By Francis Vacher, F.R.C.S. Edin. Fourth Edit. 1430

The Medical Annual, 1905 1430

Archives of the Röntgen Ray.. 1430

The Archives of Physiological Therapy. Edited by Clarence Edward Skinner, M.D. 1431

Ophthalmology. Vol. I., No. 3.. 1431

Dublin Journal of Medical Science 1431

Scottish Medical and Surgical Journal 1431

Edinburgh Medical Journal ... 1432

NEW INVENTIONS.

A Portable Electric Lamp for Hospital Use or for the Consulting Room.—*(Illustrated)* 1432

The "Englefield" Book Supports.—*(Illustrated)* 1432

Richter's Needle Holder 1432

CENTENARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY 1433

LEADING ARTICLES.

THE CENTENARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY 1439

THE HYGIENE OF FLAT LIFE... 1440

THE SESSION OF THE GENERAL MEDICAL COUNCIL 1441

ANNOTATIONS.

Medical Certificates in respect of School Attendance 1442

Spring Cleaning and Cold Weather 1443

The Royal Institute of Public Health 1443

Coroners' Inquests in Liverpool 1443

Ozone in Public Lavatories 1444

Subacute Perforation of the Stomach 1444

The Optical Convention 1445

Fresh Air and the Burglar 1445

Mount Vernon Hospital for Consumption and Diseases of the Chest, Hampstead and Northwood 1445

The Traffic in Old Horses 1446

The Duration of the Incubation Period of Tetanus: a Medico-Legal Question 1446

British Dental Association..... 1446

"Cancer Bodies" and Normal Reproductive Tissue 1446

Public Health in Hong-Kong.. 1447

Syphilis and the Spirochæte Pallida 1447

MEDICINE: ITS PRACTICE AND ITS PUBLIC RELATIONS.

Chapter XIII.

The Present State of Medical Education 1449

LOOKING BACK.

(From THE LANCET, Sept. 6th, 1834, and March 10th, 1855).. 1438

PUBLIC HEALTH AND POOR LAW.

LOCAL GOVERNMENT BOARD: Reports of Inspectors of the Medical Department of the Local Government Board.. 1456

VITAL STATISTICS: Health of English Towns ... 1457

Health of Scotch Towns 1457

Health of Dublin 1457

THE GENERAL MEDICAL COUNCIL.

The President's Address 1466

Amendment of the Companies Acts 1467

Request for Change of Designation 1468

Investigations by Medical Unions 1468

Invalid Medical Certificates ... 1468

Dental Business 1469

Visitation and Inspection of Qualifying Examinations ... 1469

SPECIAL ARTICLES.

Royal College of Physicians of London 1453

Report of the German Commission on Antityphoid Inoculation 1453

Medicine and the Law 1454

The German Surgical Congress 1455

The Services 1456

Manchester 1460

Leeds 1461

Wales and Western Counties Notes 1461

Scotland 1462

Ireland 1463

Canada 1463

New York 1464

Notes from India 1465

CORRESPONDENCE.

Diabetes and the Thyroid Gland (Dr. Arnold Lorand)... 1459

To Medical Freemasons (Mr. Harold S. Sington) 1459

The Financial Relations of the London Hospitals and their Medical Schools (Dr. E. Percy Paton) 1459

A Plea for the Recognition of the Treatment of Disease by Intravenous Injections (Dr. Thomas W. Dewar) 1459

Fifth Annual South African Civil Surgeons' Dinner (Mr. Francis E. Fremantle, Mr. C. Gordon Watson) 1460

Unpaid as Usual! 1460

A Question of Ethics 1475

An Old Lancet Case 1476

OBITUARY.

Professor Ezio Sciamanna 1465

Geoffrey Richard Slade, M.A., M.D. Cantab., M.R.C.P. 1466

MEDICAL NEWS.

Medical Golfers' Association *v.* Bar Golfing Society 1412

Pass lists of the Examining Board in England by the Royal Colleges of Physicians and Surgeons, Society of Apothecaries of London, Royal College of Surgeons in Ireland, and Trinity College, Dublin 1469

Volunteer Ambulance School of Instruction 1471

Homes for Inebriates Association 1471

Central Midwives Board 1471

PARLIAMENTARY INTELLIGENCE.

Notes on Current Topics 1472

House of Commons 1472

Registration of Nurses..... 1472

Books, &c., received 1474

Appointments: Vacancies 1474

Births, Marriages, and Deaths.. 1475

Notes, Short Comments and Answers to Correspondents... 1475

Medical Diary 1476

FOR INDEX TO ADVERTISEMENTS SEE PAGES 2 & 4.

INDEX.

MEDICAL AND OTHER BOOKS AND PUBLICATIONS.

COVER.

PAGE

BAILLIERE, TINDALL & COX:—
Autobiography of *T. J. Gant* 1
Browne & Stevenson.. Squint Occurring in Children 1
Hinder ..... Clinical Surgery 1
Lindsay .... Diseases of the Lungs and Heart 1
Moorhead .. Surface Anatomy 1
Sewill ..... Dental Surgery 1
Vincent .... Nutrition of the Infant 1

BALE, SONS & DANIELSSON:—
Moullin .... Inflammation of the Appendix 1
" .... Treatment of Gastric Ulcer 1

CHURCHILL, J. & A.:—
Squire's Pocket Companion 1

DAVIDSON & CO.:—
Grant ..... Study of Laryngoscopy 1

GLAISHER:—
Savill ..... Neurasthenia 1
Wright..... Treatment of Hæmorrhoids, &c. 1

LEWIS:—
Barrett..... Dental Surgery 1
Bastian..... Aphasia &c. 1
Jones..... Medical Electricity 1
Martindale & Westcott .. Extra Pharmacopœia .. 1
Moullin .... Enlargement of the Prostate 1
" .... Inflammation of the Bladder 1

MEDICAL PUBLISHING CO.:—
Lane..... Chronic Constipation .. 1

PENTLAND, Y. J.:—
Berry..... Manual of Practical Ophthalmology 1
Waring .... Operative Surgery 1

SAUNDERS & CO.:—
Saunders' Important Books 1

SMITH, ELDER & CO.:—
Hills ..... Anatomy 1
Finlayson's Clinical Manual for the Study of Medical Cases 1
Juler..... Ophthalmic Science, &c. 1

SMITH & ELDER—(Continued).
Lefevre .... Index of Symptoms 1
Marshall & Hurst .... Practical Zoology 1

BAILLIERE, TINDALL & COX:—
Barwell .... Lateral Curvature of the Spine, &c. 10
Bigg ..... Constipation 12
De Santi .... Malignant Disease of the Larynx 11
Harman .... The Conjunctiva: its Health, &c. 11
Lake ..... Laryngeal Phthisis 11
Lamb ..... Examination of the Throat, Nose, and Ear 10
Mayo-Collier Mouth Breathing 10
" Chronic Progressive Deafness 10
Stuart-Low.. Mucous Membrane's 9
Thorne..... Nauheim Treatment..... 10
Turner ..... Appendicitis 11

BALE, SONS & DANIELSSON:—
Simpson .... Adenoid Growths 11

CASSELL & CO.:—
Herman .... Diseases of Women 8
Marsh ..... Diseases of the Joints .. 11
Morris, H. .. Surgery of the Kidney and Ureter 11
" .. Injuries and Diseases of Genital, &c., Organs .. 11

CHURCHILL, J. & A.:—
Beach ..... Treatment of Mentally Feeble Children 9
Beale..... Slight Ailments 9
" ..... Urinary, &c., Derangements 9
" ..... The Liver 9
" ..... Our Morality, &c. 5
Butlin ..... Malignant Disease 11
Cautley..... Infant Feeding 9
Clouston .... Mental Diseases 8
Cripps ..... Diseases of the Rectum 11

Fagge & Pye-Smith. Medicine 8
Fenwick, E. H. .... Operative, &c., Tumours 8
" .... Urinary Diseases 8
" .... Electric Cystoscopy 8
" .... Ulceration of the Bladder 8
" .... Tumours of the Bladder 8
" .... Clinical Cystoscopy 8
" .... Ureteric Mastoscopy .. 8

CHURCHILL—(Continued).
Galabin .... Manual of Midwifery .. 8
" ..... Diseases of Women 8
Hall ..... Diet and Food 8
" ..... Uric Acid 8
Hainer ..... Hygiene 5
Hewlett .... Bacteriology 5
" ..... Serum Therapy 5
Marsh ..... Clinical Lectures and Essays 11
Squire's Pocket Companion 8
Tatum ..... Examination of Water and Water Supplies .. 5
" ..... Water Analysis 5
West ..... How to Examine the Chest..... 10

GLAISHER:—
West..... Granular Kidney, &c. .. 10

GRIFFIN & CO.:—
Hunter .... Pernicious Anæmia 6
Investigation of Mine Air 6
Lewis ..... Mental Diseases 6
Macleod .... Examinations in Public Health 12
Oberstiener .. Central Nervous Organs 6
Reid ..... Practical Sanitation 6
Wood ..... Poisons of Respiration 6, 12
Willoughby.. Milk 6

KEGAN PAUL & CO:—
Taylor ..... Diseases of the Eye 12

KING & SON:—
McCleary.... Infantile Mortality 10

LEWIS:—
Lewers..... Diseases of Women 8
" ..... Cancer of the Uterus .. 8
Martindale & Westcott .. Extra Pharmacopœia .. 8

LONGMANS, GREEN & CO.:—
Ashby & Wright..... Diseases of Children..... 7
Coats..... Manual of Pathology .. 7
Dakin ..... Handbook of Midwifery 7
Dickinson .. Renal and Urinary Affections 7

Goodall & Miles..... Diseases of the Anus, &c. 8
Gray ..... Anatomy 9
Hailburton.. Chemical Physiology .. 7
Quain ..... Elements of Anatomy .. 7
Schäfer..... Essentials of Histology 7
Smale & Colyer .... Diseases of the Teeth .. 7

MACMILLAN & CO.:—
Allbutt..... Historical Relations of Medicine and Surgery 9

Brunton, Blife T. L. .... Disorders of Assimilation, Digestion, &c. .. 9
" .... Text-book of Pharmacology, &c. 9
" .... Disorders of Digestion 9
" .... Pharmacology &c. 9
" .... Materia Medica 9
" .... Modern Therapeutics .. 9
" .... Lectures on the Action of Medicines 9
Hewitt ..... Anæsthetics 9
Manual of Medicine 9
New System of Medicine 9
Smith ..... Differential Diagnosis.. 9
Stonham .... Manual of Surgery 9
System of Gynæcology 9

PRACTITIONER, Ltd.:—
Clarke ..... Dislocation of the Hip.. 12

RENSHAW:—
Green ..... Pathology, &c. 12
Guy & Farrier..... Forensic Medicine..... 10
Tanner..... Index of Diseases 10
Wood ..... Application of Trusses 9

RIVINGTON & CO.:—
Dukes ..... Health at School 12

SAUNDERS & CO.:—
Hirst..... Obstetrics 5
International Text-book of Surgery .. 5
Mossman's Practice..... 10
Pusey & Caldwell .. X-Rays 5
Text-book of Obstetrics 5
Text-book of Surgery 5

SMITH, ELDER & CO.:—
Keetley .... Orthopædic Surgery.... 11
" .... Gastric Ulcers 11
" .... Complicated Fracture 11

WRIGHT & CO. (Bristol):—
Hall ..... Medical Examination.. 4
Medical Annual, 1905 4
Sutherland .. Dispensing Made Easy 4

MEDICAL LIBRARIES, &c.:—
Rebuke—Stammering 12
Glaisher—Publishers' Remainders.... 12

OFFICIAL AND GENERAL ANNOUNCEMENTS.

COVER.

OFFICIAL NOTICES:—
Sale & Co.—Address wanted 1

APPOINTMENTS VACANT:—
Bethlem Hospital 84
Birmingham and Midland Hospital for Sick Diseases 82
Brighton and Hove Lying-in Inst.... 89
Cancer Hospital, Fulham-road..... 82
Chelsea Hospital for Women 82
Chester General Infirmary 84
Cornwall County Asylum, Bodmin.... 83
Darenth Asylum, Dartford 83
Evelina Hospital for Sick Children .. 82
Grimsby and District Hospital..... 82
Guest Hospital, Dudley 83
Hos. for Sick Children, Gt. Ormond-st 85
Indian Medical Service 83
Jenny Lind Infirmary for Children, Norwich 82
Leeds Union 82
London Temperance Hospital 83
North-Eastern Hospital for Children, Hackney-road 82
North Staffordshire Infirmary and Eye Hospital, Harnhill 82
Nottinghamshire Consumption Sanatorium, Mansfield 83
Parish of St. Giles, Camberwell 84
Royal Devon and Exeter Hospital.... 83
Royal Ear Hospital, Soho 82
Royal Westminster Opthalmic Hos. 83
Salisbury Infirmary 84
Samaritan Free Hospital for Women 82
Sanatorium for Poorer Consumptives, Winslow 82
Scarborough Hospital and Dispensary 83
Somerset and Bath Asylum, Wells ... 83
South Devon and East Cornwall Hos., Plymouth 83
Southwark Union 83
Staffordshire General Infirmary 83
Stanhope Hall, Kirkbuxton..... 82
St. Peter's Hospital for Stone 83
Tottenham Hospital, London 83
Walker, Birmingham 82

ASSISTANCIES, MEDICAL 90

ASYLUMS, HOMES, &c.:—
Ashwood House, Kingswinford 81
Barkham House, Lambeth 81
Barnwood House Hospital..... 74
Bethel Hos. for Mental Diseases 80
Bishopstone House, Bedford 73
Buntingford House Retreat, Herts .. 76
Camberwell House, Peckham-road .. 73
Clarence Lodge, Clapham-park 81

ASYLUMS—(Continued).
Coppice, The, Nottingham..... 74
Cotgrave Sanatorium 76
Crooksbury Sanatorium, Surrey..... 76
Dalrymple House, Rickmansworth .. 78
David Lewis Colony, Alderley Edge.. 81
Denton Jones' Sanatorium, Parkstone 76
Dr. Rastleigh's Sanatorium, Darnmoor 78
Dr.. Sharnbrook 81
East Anglian Sanatorium, Nayland .. 77
Enclefield, Ashford 73
Fairford Retreat, Gloucestershire.... 73
Ferguson, Barnet 80
Flower House, Catford 74
Grove House, Church Stretton 74
Grove, The, Catton, Norwich 74
Hailey Open Air Sanatorium, Ipsden 78
Haydock Lodge, Newton-le-Willows 78
High Shot House, Twickenham 81
Hitch, Mrs., Hollington 74
Home for Invalid Children, Coldash 81
Home Sanatorium, Bournemouth 77
Inversnith Lodge Retreat, Colinsburgh 75
Lady Superintendent, Brighton 80
Lady Superintendent, Stranham 76
Lawson, Nordrach-on-Dee, Banchory 77
Leech, Clapham-park 81
Leigh House, Warwick 80
London Fever Hospital 80
London Open - Air Sanatorium, Wokingham 78
Maternity Home, New King's-road .. 80
Melbourne House, Leicester..... 74
Meadip Hills Sanatorium, Wells..... 77
Mont House, Tamworth 74
Neuilly, surgous-hill..... 81
New Crossley Sanatorium for Consumption, Delamere Forest..... 80
Nordrach in Wales 76
Nordrach-upon-Mendip, Somerset.... 76
Northlands Retreat, Wandsworth 81
Northumberland House, Finsbury-park 81
North Woods House, Winterbourne .. 75
Norwood Sanatorium 73
No. 746, L.O., Strand..... 80
No. 823, L.O., Strand..... 81
No. 847, L.O., Strand..... 81
Ochil Hills Sanatorium, Kinross-shire 77
Overdale, Whitefield..... 74
Plas-yn-Dinas, Merioneshshire 76
Plympton House, South Devon 74
Rowtrevor Open - Air Sanatorium, Warrenpoint..... 77
Shaftesbury House, Formby 75
Springfield House Private Asylum, Bedford 73
St. Andrew's Hospital, Northampton 74
St. Luke's Hospital, E.C. 74
Stocker, Craven-street..... 80

ASYLUMS—(Continued).
Stone House, Canterbury 80
Stone House, Church Stretton 74
Sunshine, Chislehurst 81
Thundercliffe Grange, nr. Rotherham 81
Tower House, Leicester 74
Tuthill, Fakenham 80
Vale of Clwyd Sanatorium 76
Warneford Asylum, Oxford 73
West Malling-place, Kent 73
Whitmead Hill Sanatorium, Farnham 77
Woodford House, Exeter 74
Wye House, Buxton 74
Wyke House, Isleworth 74
Yarrow Convalescent Home, Broadstairs 75

COMPANIONS 91

FINANCIAL, &c. 91

HEALTH RESORTS, BATHS, &c.:—
Aberystwith, the Biarritz of Wales .. 90
Austrian Travel Bureau—
Tours in Austria 79
Bad Ems 79
Bad Gastein 80
Bad Homburg 79
Bad Nauheim 79
Felixstowe..... 78
Garnigel, Switzerland 79
Harrogate 80
Langenschwalbach..... 79
Matlock Bath 78
Moffat Hydropathic 80
Smedley's, Matlock 80
Spa, Belgium 80

HOMES, &c., WANTED 91

HOTELS:—
Barton Court Hotel, New Milton 78
Grand Hotel Carron, Hoenay 78
Ilfracombe Hotel 73
Kissingen—Hotel de Russie 77
Montreux House and Chalets, Belmont 73
Philips' Dunblane Hydro 73
Port Orotava—English Grand Hotel.. 78

HOUSE & ESTATE AGENTS..... 80

LIFE & FIRE ASSURANCES 81

MEDICAL ACCOUNTANTS, &c.:—
Turner 89

MEDICAL AGENTS:—
Dr. Field Hall 84
Lee & Martin 85
London Medical Agency 87
Manchester Medical Agency 88
Manchester Medical, &c., Association 88
Medical Agency 87

MEDICAL AGENTS—(Continued).
Needes, Herbert 6
Needes, J. C. 6
Orridge 85
Peacock & Hadley 87
Scholastic, Clerical, &c., Assoc. .. 85, 87
Southern Medical Agency 87
Turner 89
Wilson & Son 87

MEDICAL SCHOOLS (London):—
Cooke's School of Anatomy 6
West London Post-Graduate College.. 6

NURSING INSTITUTES:—
Clapton Nursing Home 72
General Nursing Association 72
Hos. for Sick Children, Gt. Ormond-st 72
Leeds Trained Nurses' Institution.... 72
London Nurses' Association 72
Male and Female Nurses' Assoc. 72
Male Nurses' Association 72
Male Nurses' Co-operation 72
Middlesex Hos. Trained Nurses' Inst. 72
Mildmay Nursing Institute 72
Nurses' Co-operation, Portland-place 72
Queen Charlotte's Lying-in Hos 72
St. John's House 72
Temperance Male and Female Nurses' Co-operation 72
Temperance Male Nurses' Co-operation 72

OFFICIAL NOTICES:—
Durham University Med. Graduates' Association 72
Hospital for Diseases of the Throat .. 72
Medical Exhibition 72
Mount Vernon Hos. for Consumption 6
New York Post-Graduate Medical School and Hospital 6
Oxford University 72
Pathological Laboratories, Langham-place 6
Royal London Ophthalmic Hospital.. 6
Royal Naval Medical Examination .. 72
Surgical Aid Society 72
University of Cambridge..... 72

PARTNERSHIPS & PRACTICES 90

RAILWAYS, &c. 91, 92

SCHOOLS, PREPARATORY, &c.:—
Manchester Physical Training College 72

TUTORS & LECTURERS:—
Duchesne 70
Evans 70
Fellowships 71
Gooch 70, 71
Kerin 71
No. 882, L.O. .. 71
Paterson 71
Tea Practice..... 71
Weymouth 70

(For Index to Trade and Miscellaneous Advertisements see page 4).

J. & A. CHURCHILL, Publishers.

GALABIN'S

Manuals for Students and Practitioners.

OBSTETRICS.

Sixth Edition. 329 Engravings. 14s. net.

A Manual of Midwifery, including
ALL THAT IS LIKELY TO BE REQUIRED BY STUDENTS AND PRACTITIONERS.

BRITISH MEDICAL JOURNAL.—"An account of the science and art of midwifery given by one of the most competent persons to expound it that could be found in England or in the world."

GYNÆCOLOGY.

Sixth Edition. 284 Engravings. 16s. net.

The Diseases of Women.

THE LANCET.—"Dr. Galabin's well-balanced judgment has enabled him to present the two sides of many debateable questions with much fairness, and as a result of this the whole work forms a very valuable addition to gynæcological literature."

By RICHARD T. HEWLETT, M.D.,
Professor of General Pathology and Bacteriology in King's College, London.

A Manual of Bacteriology, Clinical and Applied.
Second Edition. With 20 Plates and 66 Figures in the Text. 12s. 6d.

Serum Therapy, Bacterial Therapeutics, and VACCINES. With 20 Figures. 5s. net.

Manual of Hygiene. By W. H. HAMER, M.D., D.P.H., F.R.C.P., Lecturer on Public Health, St. Bartholomew's Hospital; Assistant Medical Officer of Health of the Administrative County of London. With 93 Illustrations. 12s. 6d. net.

Mental Diseases: Clinical Lectures. By T. S. CLOUSTON, M.D., F.R.C.P. Edin., Lecturer on Mental Diseases in the University of Edinburgh. Sixth Edition. With 30 Plates. 14s. net.

Fagge and Pye-Smith.—Text-book of Medicine.
Begun by the late Dr. C. H. FAGGE. Completed after his death and since Revised and in part Rewritten by PHILIP HENRY PYE-SMITH, M.D., F.R.S., Consulting Physician to Guy's Hospital. 4th Edit. 2 Vols. £2 2s.

THE EDINBURGH MEDICAL JOURNAL.—"Dr. Pye-Smith has succeeded in retaining much of the freshness and fascination of the original work, while greatly adding to its usefulness. In no previous edition has such a high standard of general excellence been attained."

By JOHN C. THRESH, D.Sc., M.D., D.P.H.,
Medical Officer of Health for the County of Essex.

The Examination of Waters and *WATER SUPPLIES.* With 19 Plates and 13 Figures in the Text. 14s. net.

"A practical work covering the entire field of water investigation from the source to the consumer. Altogether the book presents in a very handy form all that is really necessary for the detailed examination of waters, and for the correct interpretation of results."—BRITISH MEDICAL JOURNAL.

A Simple Method of Water Analysis. Fifth Edition. 2s. 6d.

By E. HURRY FENWICK, F.R.C.S.,
Surgeon to the London Hospital.

A Handbook of Clinical Cystoscopy. With 31 Plates and 144 Engravings in the Text. 18s. net.

Ureteric Meatoscopy, in the Diagnosis and TREATMENT OF OBSCURE DISEASES OF THE KIDNEY. With 14 Plates and 45 Illustrations in the Text. 6s. 6d.

Operative and Inoperative Tumours of the URINARY BLADDER. With 39 Illustrations. 5s.

Ulceration of the Bladder, Simple, Tuberculous, and Malignant. With Illustrations. 5s.

Tumours of the Bladder. Fasc. I. 5s. net.

Cardinal Symptoms of Urinary Disease. 3s. 6d.

Atlas of Electric Cystoscopy. (With Dr. BURCKHARDT of Basle.) With 34 Coloured Plates. 21s. net.

On the Feeding of Infants and *YOUNG CHILDREN: Natural and Artificial Methods.* By EDMUND CAUTLEY, M.D., Physician to the Belgrave Hospital for Children. Second Edition. 7s. 6d.

Dr. LIONEL BEALE, F.R.S.

Slight Ailments, their Nature *AND TREATMENT.* Fourth Edition. 5s.

Urinary and Renal Derangements. 5s.

The Liver. 5s.

Our Morality and the Moral *QUESTION.* Second Edition. 3s. 6d.

The Treatment and Education of *MENTALLY FEEBLE CHILDREN.* By FLETCHER BEACH, M.B., F.R.C.P., Physician to the West End Hospital for Nervous Diseases; formerly Medical Superintendent of the Darenth Schools for Imbecile Children. 1s. 6d.

"We recommend the perusal of this practical work to all who are concerned with the care and training of children of deficient mental power."—BRITISH MEDICAL JOURNAL.

Dr. HAIG'S WORKS.

Uric Acid as a Factor in the *CAUSATION OF DISEASE.* Sixth Edition. With 75 Illustrations. 15s.

Uric Acid: an Epitome of the *SUBJECT.* 2s. 6d. net.

Diet and Food considered in Relation to Strength and Power of Endurance, Training, and Athletics. Fifth Edition. 2s. net.

London: J. & A. CHURCHILL, 7, Great Marlborough Street.

INDEX—(CONTINUED).

TRADE AND MISCELLANEOUS ADVERTISEMENTS.

COVER.

PAGE

CHEMISTS & DRUGGISTS:—
Allcock & Co.—
Pepsine Pured ... 11
Acid Glycerine of Pepsine ... 11
Kühn & Co.—
Papain-Finkler ... 11
Maltine Manufacturing Co.—
Maltine with Cascara Sagrada ... 1v

FOODS:—
Fry's Maltol Cocoa ... iii
Valentine's Meat Juice Co.—
Meat Juice ... iii

TOBACCO, CIGARS, &c.:—
Player's Navy Mixture ... ii

MISCELLANEOUS:—
Marryweather's Garden Hoses ... iii

AMBULANCES:—
Electromobile Co.—
Electric Motor Ambulance ... 14
St. John Ambulance—
Invalid Carriage ... 14

BICYCLES, &c.:—
Norton—Tricycles ... 14

CARRIAGES, MOTORS, &c.:—
Armstrong—
Coachmen's and Grooms' Liveries 14
Dubuis—Victoria-Brougham ... 14
Humber, Ltd.—
Motor Cars ... 14
Imperial Accident, &c., Insurance Co. 14
Mayhoux & Son—
Medical Coupé ... 14
Star Motor Agency—
Motor Cars ... 13
97, George-street, Portman-square—
Secondhand Carriages ... 14

CHEMISTS & DRUGGISTS:—
Allen & Hanburys—
Byno-Hypophosphites ... 41
Hydin ... 40
Ambrus & Andrus—
Homaboloids ... 39
Anglo-American Pharmaceutical Co.—
Onichi-Sai ... 38
Betui-Oil ... 35
Antikamnia Chemical Co.—
Antikamnia Tablets ... 37
Armour & Co.—
Suprarenalin ... 31
" Solution ... 31
" Triturates ... 31
Battley's Liquors ... 41
Bayer Co.—
Veronal ... 38
Heimitol Prolargol ... 37
Heroin Hydrochloride ... 38
Biogen Co.—Biogen & Dernegon ... 36
Brady & Martin—
Faline Infusion Apparatus ... 32
Brin's Oxygen Co.—Brin's Oxygen ... 34
British Ambrosine Manufacturing Co.—
Ambrosine ... 32
Burgoyne, Burbidges & Co.—
Salth ... 42
Xeroform ... 43
Burroughs, Wellcome & Co.—
Kepler Extracts ... 43
Tabloid Medical Equipments ... 44
" Nux Vomica Compound ... 45

CHEMISTS—(Continued).
Bussy & Co.—
Bryogaiol ... 42
Glyco-Thymoline ... 42
Mel-Maroba ... 32
Davenport—Dr. J. Collis Browne's Chlorodyne ... 34
Denver Chemical Co.—
Antiphlogistine ... 30
Dinneford's Fluid Magnesia ... 43
Duncan, Flockhart & Co.—
Chloroform ... 24
Chloryl Anæsthetic ... 24
Fairchild Bros. & Foster—
Pepsin Pepsin ... 32
Wellcome—Syr. Hypophos. Co., Fellows 34
Goodrich & Co.—
Arsenal Superchlorides ... 42
Probilin Pills ... 42
Graeff & Co.—Kéfirine ... 30
Hewlett & Son—
Liq. Santal Flav. c. Bucku et Cubeba ... 30
Heyer & Co.—Hefo-Seifen ... 40
Kirby & Co.—
Purgen ... 28
Knoll & Co.—Styptol ... 34
Kreochyle Co.—
Barff Soro Glycerile ... 34
Lamont, Corlies & Co.—
Hydrosone ... 33
Meister Lucius & Brüning—
Isoform-Hoechst ... 25
Argonin ... 25
Sajodin ... 25
Pyramidon ... 25
Anasthesin ... 25
Trigemin ... 25
Alzimol ... 25
Benzosol ... 25
Newbery & Sons—
Pulvis Jacobi Vor ... 40
Tono-Nervine Tablets ... 31
Tono Bumbul Cordial ... 31
Chevara Elixir ... 31
Iodivin ... 31
Bromo Soda ... 34
Obesity Tablets ... 41
Parke, Davis & Co.—
Eudrenine ... 29
Raimes & Co.—
Allinger's Nutrient Suppositories... 42
Roberts & Co.—
Bromidia ... 40
Salamon & Co.—Parent Chloroform ... 42
Sanatogen Co.—Sanatogen ... 35
Savory & Moore—
Pancreatic Emulsion ... 27
Schimmel & Co.—Follantin ... 42
Scott & Bowne—
Scott's Emulsion ... 35
Sellitogene Patent Charges Co.—
Sulphogas ... 42
Serravallo's Tonic ... 30
Squire & Sons—
Cystamine ... 35
Dermaglobin ... 35
Malaglobin ... 35
Suprarenal Specialities ... 35
Tamar Indian Grillon ... 41
Zimmermann, A. & M.—
Nafalan ... 40

EMBALMERS:—
Pearse ... 32

FILTERS:—
Defries & Sons—Pasteur Filter ... 37

FOODS:—
Allen & Hanburys—
Allenburys Milk & Cereal Diet ... 39
Aylesbury Dairy Co.—
Humanised Milk ... 39

FOODS—(Continued).
Benger's Food, Ltd.—
Benger's Food ... 45
Bletchley's Diabetic Preparations ... 44
Bonthron & Co.—Gluten Bread, &c. ... 45
Brand & Co.—Essence of Beef ... 44
Burroughs, Wellcome & Co.—
Perfected Wyeth Beef Juice ... 42
Cadbury's Cocoa ... 14
Calliet's Milk Chocolate ... 20
Callard & Co.—
New Diabetic Foods ... 41
Clarke & Sons' Nursery Milk ... 45
Evans Sons Lescher & Webb, Ltd.—
Savar's Cocoa Wine ... 34
Fairchild Bros. & Foster—
Fancypepsos ... 33
Foods, Ltd.—
Mondeya Food ... 37
International Plasmon, Ltd.—
Plasmon ... 17
Maltos Co.—Maltos ... 46
Nestlé—Milo Food ... 18
Savory & Moore—
Peptonised Milk ... 38
" Cocoa and Milk ... 38
" Coffee & Milk ... 38
" Milk-Chocolate ... 38
Tibbles' Vi-Cocoa, Ltd.—Vi-Cocoa ... 17
Van Abbott & Sons—Gluten Flour ... 44
Virol, Ltd.—Virol ... 25
Welford & Sons—
Humanised Milk ... 18
Asses' Milk ... 18

FURNITURE, &c.:—
Allan Jones & Co.—
Lattistep ... 46
Folding Table ... 46
Angus & Co.—Sectional Bookcase ... 31
Carter—Levvald Furniture ... 34
Maple & Co.—
"The Roy" Iron Reclosed ... 47
Ward—Invalid Chairs, &c. ... 19

HOSIERS, &c.:—
Cash—
Invalid's Nightdress ... 18
Washable Maternity Bodice ... 18
Samuels—Shirts and Collars ... 18

MED. & SURG. APPLIANCES:—
Bailey & Son—
Aseptic Hospital Furniture ... 32
Cocking—
Perro-Plastic Jackets and Splints ... 18
Cox—Mackenzie Davidson Motor Mercury Break ... 18
Downing Electrical Heat Co.—
Downing Radiant Heat and Light Treatment ... 39
Farris & Co.—
Wafer Wool Throne ... 47
Wafer Wool ... 47
Flaying Gauze ... 47
Hooper & Co.—
Mastic Water or Air Beds ... 18
Krohne & Sesemann—Bandages ... 42
May, Roberts & Co.—
Absorbent Tissue ... 32
Cotton Wools ... 32
Gauzes Tissue ... 32
Lints ... 32
Waterproof Sheetings ... 32
Millikin & Lawley—Osteology, &c. ... 16
Robinson & Sons—Gauze Tissue ... 12

MINERAL WATERS:—
Contrexeville Pavilion ... 40
Davis—Turnap Water ... 44
Hogg & Son—Alfred Lyndine Water 45
Ingram & Royle, Ltd.—
Carlsbad Salt ... 38

MINERAL WATERS—(Continued).
Kissingen Mineral Waters ... 37
Appel & Co.—
Friedrichshall Mineral Water ... 37
Robinson's Concentrated Waters ... 39
Voigt Bartman & Co.—
Wiesbaden Gout-Water ... 21

PHOTOGRAPHY:—
Martin—Developing Rollable Film ... 31

PRINTERS & ENGRAVERS:—
Cooke & Co.—
Brass Name Plates and Lamps ... 12
Culleton—
Brass Door Plates ... 31
Heraldry, &c. ... 31

SANITARY APPLIANCES, &c.:—
British Lysoform Co., Ltd.—
Lysoform ... 31
Condy's Fluid Works—
Condy's Crystals ... 31
Defries & Sons—
Equifex Disinfector ... 37
Sanitary Wood Wool Co.—
Hartmann's Wood Wool Wadding 22
" Wood Wool Tissue ... 22
" Wood Wool Vaccination Pads ... 22
" Wood Wool Gonorrhœa Bags ... 22
Simon Bros.—
Hall's Distemper ... 40
Wright, Layman & Umney—
Liquor Carbonis Detergens ... 12

STATIONERY, &c.:—
John Heath & Co.—Pens ... 31

TAILORS, BOOTMAKERS, &c.:—
Fisher & Sons, Tailors ... 12

TYPEWRITING, &c.:—
Cambridge Typewriting Agency, Adelphi ... 12

VACCINE LYMPH:—
Allen & Hanburys—
Calf Lymph ... 13
Assoc. for Pure Vaccine Lymph ... 13
Hime—Glycerinated Calf Vaccine ... 13
Jenner—Institute for Calf Lymph ... 13
Rennes's Calf Lymph Establishment... 13
Wyleys, Ltd.—Calf Lymph ... 13

WATCHMAKERS, &c.:—
Benson—Doctor's English Watch ... 19

WINES, BEER, SPIRITS, &c.:—
Black & Co.—
"G. B." Diabetic Whisky ... 46
Bishop & Sons—
Bolteau's Brut Cognac ... 47
Brut-Royal ... 47
Brown & Pank—
Pine Vintage Brandy ... 45
Buchanan—
Special Scotch Whisky ... 46
Gautier's Liqueur Brandy ... 46
Hennessy's Three Star Brandy ... 8
Martell's Three Star Brandy ... 8
Whiteway's Devonshire Cyders ... 6

MISCELLANEOUS:—
Box & Co, Bradford—Croquet Set ... 31
" &c. —Tennis Set ... 31
Incorporated Medical Practitioners' Association—Debts Collected ... 39
Secretary, Ilfracombe—
Bath Mats ... 31

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto.	0 5 0
Trade and Miscellaneous Advertisements and Situations Vacant	Ditto.	0 4 6
	Every additional line	0 0 6

Situations Wanted: First 30 words, 2s. 6d.; per additional 8 words, 6d.
Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an *additional* advertisement.

Advertisements (to insure insertion the same week) should be delivered at the Office not later than Wednesday, *accompanied by a remittance.*

Answers are now received at the Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only hould be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

OFFICES: 423 AND 424, STRAND, LONDON, W.C.; AND 1, 2, AND 3, BEDFORD STREET, ADJOINING.

An Address

ENTITLED

CLINICAL ILLUSTRATIONS OF ANGINA PECTORIS AND PSEUD-ANGINA.

Delivered before the Brighton and Sussex Medico-Chirurgical Society on April 6th, 1905.

BY SIR W. H. BROADBENT, BART., M.D. LOND., D.Sc. LEEDS, F.R.S.,

PHYSICIAN IN ORDINARY TO HIS MAJESTY THE KING AND TO HIS ROYAL HIGHNESS THE PRINCE OF WALES.

GENTLEMEN,—It is not necessary that I should describe angina pectoris in all its varieties. We understand by it pain in the cardiac region, chiefly behind the sternum, with radiation, most frequently down the inner aspect of the left arm to the elbow, or to the hand, especially the two ulnar fingers, or down both arms, or to the shoulder, neck, or face. Or it may begin in some part of the arm, as, for example, by painful tight feeling round the wrist, extending up the limb to the chest. The pain may vary in character and intensity and may be described as crushing by a gigantic weight, or as if the chest were held in a vice, or as tearing, or burning. All sufferers agree that there is no other pain like it and it is usually accompanied by a sense of impending death. The distinctive characteristic of true angina is that it is induced by exertion, by walking upstairs or up an incline, or against the wind, more easily soon after food (after breakfast is a favourite time in early cases), or when the air is cold on first going out. Or an attack may come on when the patient goes to bed, after perhaps walking upstairs, the exertion of undressing, assuming the horizontal position, and the contact of cold sheets. Next to exertion in provoking an attack comes excitement, and in advanced cases the movement of a limb, a breath of air, the slamming of a door, the announcement of a visitor, may be sufficient to precipitate an attack. The effect on the circulation common to all these exciting causes is increase of the blood pressure in the arterial system and this must be regarded as the determining antecedent. The attacks are usually brief, the sufferer, indeed, will often say that if they had lasted another minute he must have died, he stands still, or suspends any exertion in which he is engaged, and may not even dare to breathe. With the cessation of the exertion the paroxysm subsides or speedy relief may be obtained by inhaling amyl nitrite or taking nitro-glycerine. The patient may then be able to resume his walk and to go on for some time without provoking another attack. Sooner or later sudden death usually occurs during, or at the outset of, a paroxysm. While the attacks are, as a rule, soon over, the pain may last for hours. In one case to which I was called the patient had spent an entire night sitting in a chair, not daring to move, the face bathed in cold perspiration and having an agonised expression. He made a temporary recovery. In another, in which I made a post-mortem examination and found the heart in an advanced state of fatty degeneration with calcified coronary arteries, death took place after hours of terrible suffering in the night.

During the paroxysms the one condition of the circulation which seems to be always present is contraction of the peripheral arterioles. It was the recognition of this fact and of its significance which formed the basis of Sir Lauder Brunton's employment of amyl nitrite and nitro-glycerine, which have been of such value in the treatment of angina. I have sometimes been tempted to think that in certain cases the initial event is that the blood-supply from the heart fails and the arteries contract down upon the empty lumen as they do post mortem. The pulse may remain steady or become irregular, it is rarely much accelerated but may be slow and hesitant. The face may be flushed, or pale, or keep its natural colour. The most constant post-mortem condition found has been more or less occlusion of the coronary arteries from a calcareous or atheromatous or sclerosed condition of these vessels with perhaps thrombosis, or from disease of the walls of the aorta narrowing their orifices. As a consequence of the obstruction to the blood-supply, general or local degeneration, fatty or more frequently fibroid, of the walls of the heart is usually produced, though death may occur before even microscopic changes in the muscular striæ can be recognised. A noteworthy fact is that the cavities are almost always found to be empty after death.

The theories, as they may be called, or explanations advanced as to the cause of the pain are very many in number. Huchard enumerates no less than 80 of these hypotheses. I shall consider them simply in so far as they concern prognosis and treatment and from this point of view only two demand serious attention. Huchard regards the attacks as consisting essentially of what may be called cramp of the cardiac muscle due to ischæmia or privation of blood produced primarily by disease of the coronary arteries or occlusion of their mouths, possibly intensified by spasmodic contraction of these vessels. For Huchard there is only one true angina pectoris, the coronary, and his discussion of the entire question is one of the most interesting parts of his monumental work. An alternative view is that the pain is due to overstrain of the heart in the endeavour to overcome resistance in the peripheral circulation to which it is no longer equal or to distensive stress of the aorta. The incompetence of the heart may be the result of inherent weakness from degeneration of its muscular walls, or may be only relative to great increase of the resistance in the arterioles and capillaries, or may be attributable to a combination of the two. Some degeneration or deterioration of the heart walls must, however, be an indispensable, and, indeed, the special, factor in the causation or angina would be much more common in chronic Bright's disease in which arterial tension reaches its maximum. The inadequate blood-supply, again, which gives rise to the degeneration may also affect the nutrition of the cardiac ganglia and nerves and in this way predispose to pain. The conclusion that the condition of the heart walls must be the dominant factor in angina seems to me to be confirmed by two cases which have come under my observation, in which, after plague, the heart was left in a state of extreme asthenia and pain of an anginoid character was experienced on very slight exertion.

Before entering upon the consideration of the different forms of true angina we may speak of false angina. To establish this distinction will be a matter of vital importance, as it may enable us to lift the burden of constant apprehension from the minds and lives of patients and to restore a family to tranquillity and happiness. We may dismiss the hysterical person, male or female, who comes with a diagnosis of angina pectoris ready-made and cannot find terms adequately to describe his or her complicated agonies, who is ready to adopt any suggestion we may make as to the seat and character of the pain and as to the direction and extent of its radiation. The attacks may come on at any convenient time and may last indefinitely but are not allowed to interfere with pleasant engagements. These patients do not wish their friends to be undeceived as to the character of the attacks.

Paroxysmal pain in the cardiac region may be due to a great variety of conditions; it would be waste of time even to enumerate them. Speaking generally, in all cases in which the attacks come on chiefly during repose, when perhaps the patient is sitting reading or writing, however severe and however closely they may appear to conform in the description given of them to true angina, the presumption is that they are spurious unless they have been led up to by the frequent occurrence of pain induced by exertion. The presumption is increased if there are tumultuous action of the heart and irregularity or intermission of the pulse, of which the patient is conscious, particularly if the pain lasts for some time. The same may be said of cardiac pain occurring during the night if there is no history of the patient having also been brought up short when walking by pain in the chest. If the nocturnal attacks recur, and particularly if they observe a sort of punctuality in their recurrence, it may be concluded that they are of gastric origin. We shall, however, be cautious in coming to this conclusion and in acquitting them of all serious significance if there is valvular disease of the heart or considerable dilatation. The cases which most closely simulate true angina are those in which there is dilatation of the stomach and when, with a dilated stomach, there is high arterial tension, which is so very

frequently associated with angina, we may have attacks which can scarcely be distinguished from those of true angina. I have chosen three of these as illustrations. In all of them a diagnosis of angina had been made.

CASE 1. *Pseud-angina.*—A retired officer, aged 70 years, consulted me in October, 1895. He said he had suffered from heartburn for 30 years and had had four attacks of influenza which had left his heart weak, so that after a walk of a quarter of a mile he was pulled up by pain in the centre of the chest which radiated down to the hands on both sides. During the attack his breathing was embarrassed and there was palpitation of the heart. He often had to lie flat on the floor. He was also liable to attacks which came on at 3 A.M. in which there was a sense of suffocation as well as severe pain and violent palpitation. He took carbonate of sodium and magnesium, brought up gas, and was then able to sleep again. The pulse was large and very tense. The cardiac impulse was weak and the apex beat could not be defined. The sounds were normal. The abdomen was very prominent; the stomach resonance was extensive, coming up to the fifth space. Voluminous splashing could be elicited. The diurnal attacks were extremely like those of true angina and they were induced by slight exertion. I have, however, never known a patient to lie flat in angina and it is very unusual for him to complain of palpitation. The attacks coming on punctually at 3 A.M. were certainly attributable to the dilated stomach and it seemed possible that this played an important part in the production of the anginoid paroxysms which followed slight exertion. He was dieted, was given pilula hydrargyri and ipecac and rhubarb, with the idea mainly of reducing the pulse tension, and bicarbonate and sulphocarbolate of sodium with ammonia, gentian, and peppermint for the relief of the distension of the stomach. Ten days later he had only had one attack during which the pulse was irregular—hurried and stopping in turn. A serious indiscretion in diet was followed by distressing symptoms of a mixed character, but in December he was apparently well in all respects. I have met him since in society, sometimes very late at night. He has always said that he was perfectly well. Since the above was written he has called upon me looking the picture of health and enjoying life in all its aspects notwithstanding his 80 years.

CASE 2. *Vaso-motor pseud-angina.*—A man of spare habit had suffered from some affection of the heart for several years. It was said to be angina and he had twice undergone a Nauheim course. The pain was brought on by exertion, especially after food; its seat was across the upper part of the chest and down the left arm to the elbow; it was not very severe and the liability to paroxysms varied greatly. When I saw him on Nov. 9th, 1903, the pulse was somewhat tense; the dimensions and sounds of the heart were normal, but a curious dry vibratory friction was heard over the apex, especially during expiration. It resembled the sound produced by a wet finger on a pane of glass and was exaggerated when he lay down. He had been taking iodide of potassium and I attributed the friction to deficient moisture of the pericardial surfaces due to the iodide. The stomach resonance was extensive and the upper line was unduly high. Splashing was very distinct and voluminous; there was much dreaming and he awoke early. The tongue had a slight central fur. The treatment was suggested by the condition of the stomach and was practically such as that described. The patient was very soon able to walk uphill between 12 and 1, when the stomach was comparatively empty, but still had pain on exercise after food. On Nov. 30th the pulse was soft and elastic, the apex beat was felt in the normal situation, and the heart sounds and intervals were normal. He thought a tonic pill which I had prescribed did not suit him and took again a mixture containing iodide. When next seen, on Dec. 14th, a creaking pleural friction was heard over the lower part of both lungs. The dilatation of the stomach persisted and much splashing was elicited by succussion. Sodium sulphocarbolate and carbonate were now given with ammonia and gentian three times a day. With the suspension of the iodide the pleural and pericardial friction disappeared. There was distinct general improvement but with great fluctuations which were usually traceable to errors in diet. I found, for instance, that while drinking little with his meals in accordance with my instructions he took a breakfast cup of weak tea immediately after lunch. He was also eating stewed prunes and Normandy pippins after telling me that apples in any form disagreed with him. The condition of the stomach was not much modified and it was difficult, as the patient was only seen at uncertain intervals, to control the eccentricities in the way of food. He was therefore taught to wash out the stomach and for six weeks did this every night. I did not see him for three months, when he could take a good deal of exercise without pain and had resumed his morning ride. When last seen, on Jan. 25th, 1905, he had remained well, though the washing out of the stomach had been given up for about six months. On the previous Sunday he had walked two miles to church and had read the lessons. He has since had occasion to write on other matters and spoke of his restoration to health.

CASE 3. *Pseud-angina.*—A man, aged about 60 years, consulted me in September, 1903, on account of pain across the chest to the left shoulder and down the arm, coming on after exertion but also at other times. He was conscious of beating of the heart and said he heard it. The pain had been pronounced to be angina and work and exercise had been forbidden. He suffered also from giddy feelings as if tipsy. The pulse was rather tense; the heart sounds and intervals were normal, the aortic second sound being slightly accentuated. The stomach resonance was found to be extensive and its upper limit high in the chest. The diet was regulated. A mild mercurial aperient was given twice a week and measures were taken for the reduction of the distension and dilatation of the stomach. The restrictions on exercise and professional duties were gradually relaxed and removed. Recurrences of some or other of his symptoms brought this patient to me from time to time. The pulse after the first visit was of normal tension; the apex beat was normal in character and in situation; the aortic second sound was scarcely accentuated. The dilated condition of the stomach persisted more or less and it was found necessary to have repeated recourse to the treatment for dilatation of the stomach which I have described. I have seen him within the last few days. His duties had involved frequent journeys and much and varied work. He had shot well through the winter and walked 11 miles with enjoyment. He expressed himself as feeling perfectly well and capable of any amount of exercise, always feeling the better for it. He had pain in the cardiac region from time to time but it had no relation to exertion and could usually be traced to irregular meals or unsuitable food.

Coming now to true angina, the diagnostic distinction is that the attacks of pain are brought on by exertion. The first paroxysm may come on during some special effort and may be very severe. More commonly the early attacks are slight. Angina, answering to this criterion, is met with clinically in association with aortic valvular disease, or with aortitis, or with dilatation of the aorta, general or aneurysmal, or with atheromatous disease of the aorta without obvious dilatation, or with fatty degeneration of the heart. These may be represented as different stages or different effects of general disease of the arterial system and all of them, except perhaps acute aortitis, are very common without angina.[2] Angina is established when the coronary arteries are implicated. Disease of the mitral valve does not give rise to angina; the supervention of mitral regurgitation may, indeed, greatly diminish the liability to attacks in a case of angina. This may perhaps be because breathlessness on slight exertion anticipates the paroxysm of pain; the course of the disease may be entirely changed. In connexion with valvular affections it is only in aortic disease that angina is met with and then not when the insufficiency or obstruction is the result of rheumatic valvulitis. Very frequently, indeed, a systolic murmur in a case of angina does not indicate real obstruction and, with a diastolic murmur, there may be extremely little regurgitation. When this is the case the valvular affection, as such, is of no importance in itself; it is simply an effect of roughness or rigidity of the ring and cusps or of dilatation of the orifice and of the root of the aorta, due to atheromatous disease in the immediate neighbourhood of the coronary arteries which has narrowed their mouths or invaded their walls. The valvular affection and the dilated and atheromatous condition of the aorta are themselves effects of old-standing high arterial tension and the aortic second sound will be loud and ringing even when there is a double murmur, or the changes in the aorta and valves and blocking of the coronary arteries may be due to syphilitic disease of the arterial system, which is not necessarily attended with high blood pressure.

The atheromatous changes in the aorta, while ultimately

exhibiting extreme forms of degeneration such as calcareous patches, begin originally as inflammatory exudations. The inflammation, however, is so insidious and chronic that no clinical evidence of its progress is recognisable, except that its presence may be inferred when physical signs of dilatation of the ascending aorta or of the arch can be made out. Occasionally subacute aortitis reveals itself by symptoms.

CASE 4.—In November, 1899, a man, aged 50 years, who had previously been under my care for various ailments, came to consult me, looking ill and complaining of pain in the chest. He had a spasmodic cough and his voice was cracked; the left pulse was smaller than the right. These symptoms were highly suggestive of aneurysm but no confirmatory physical signs were obtainable. A loud systolic aortic murmur, not previously present, was heard over the entire heart. The maximum intensity was at the right second space but it was reinforced along the course of the aorta. The aortic second sound was not accentuated. This patient remained under observation for some months. He refused to believe that there was anything serious the matter with him and could not be persuaded to rest. The course of the case was extremely erratic. The pain in the chest varied in degree but could never be called severely anginoid. From time to time he looked fagged and worn and his eyes were sunken. His nights were often bad and disturbed by the beating of the heart. The pulse was never tense and was usually below the normal frequency (60–54), sometimes small and weak, at others large and lax. The difference between the right and left radials did not last. Soon after I first saw him a soft diastolic murmur was developed. It was sometimes audible, at others not, but at length it disappeared. All symptoms subsided in about six months, but he was left with a loud systolic murmur and a sharp second sound suggestive of thin parchment-like aortic walls. The patient is still actively engaged in business. There can be no doubt that there was inflammation along the whole course of the arch of the aorta. The orifice of the left subclavian was at first apparently narrowed by swelling of the tunica intima. Fortunately the coronaries were not implicated.

In acute aortitis, which is very rare, there may be frequent anginoid attacks while the patient is lying in bed without any apparent exciting cause if the mouths of the coronary arteries are blocked by the swelling of the internal tunic of the aorta. A case has occurred very opportunely in the out-patient practice of my son which will be related.[1] In a large proportion of the cases of angina the condition known as arterio-sclerosis is present in a marked degree. The radials are not only full between the beats of the pulse but the coats are thickened and firm, the vessels are tortuous and can be rolled under the finger and followed up the forearm. The radials and the brachials at the bend of the elbow can often be seen to be thrown into curves with each pulsation. The aorta is dilated. It is not always easy to make this out by percussion, but it is indicated very distinctly by the loud, low-pitched, sometimes ringing aortic second sound heard for a considerable distance outside the right border of the sternum and across the manubrium. In some cases the maximum intensity is shifted from the second to the third space by elongation of the ascending aorta carrying the base of the heart downwards. Occasionally a slight tracheal tug can be felt.[2] The angina, however, does not stand in any direct relation with the degree of dilatation of the aorta but is dependent on interference with the coronary circulation. Angina may supervene in a comparatively early stage of the general arterial disease before the radials are much thickened or distinctly tortuous and before the aorta has become dilated, if the coronaries happen to be involved in a swollen patch of exudation from the first. In syphilitic disease of the arterial system, while there may be valvular lesions, dilatation of the aorta, or aneurysm, the blood pressure may not be high. It is the part played by high blood pressure or high arterial tension in angina which affords us an opening for treatment which may alleviate and sometimes cure. The cases in which the prognosis is most unfavourable and in which we can do least for the relief of the patient are those in which the physical signs are negative. This is particularly the case in fatty degeneration of the heart. In a less degree the remark is applicable to the cases in which, with angina, there are little thickening of the radials and little dilatation of the aorta in consequence of premature implication of the coronary arteries.

The treatment of angina, then, resolves itself into the treatment of high arterial tension. The resistance in the peripheral circulation which gives rise to this I place primarily in the capillaries, and it is attributable to the presence in the blood of impurities which provoke this resistance. The object before us, then, is to prevent the formation and to promote the elimination of these toxins. We simplify the diet, reducing the amount of animal food, and especially of the richer meats, bearing in mind also the fact, pointed out by Dr. G. Oliver, that boiled meat raises the arterial tension much less than roast meat. Meat extracts of all kinds will be forbidden. It may be worth while in some cases to order a strict milk diet and to enforce absolute rest. The patient must, of course, be placed under the best obtainable hygienic conditions as regards air and climate and should take daily such exercise as he is capable of without bringing on pain. Exercise may be supplemented by judicious massage and resisted movements. By way of promoting elimination a tumbler of water should be drunk night and morning, hot or cold—perhaps also an hour before meals. The alkaline salts also are eliminants, particularly the potassium and lithium salts, and may be given to aid the action of the water. Certain mineral waters are useful in this respect. A more definite effect on arterial tension is obtained by mercurial aperients and iodides, presumably through their eliminant action, possibly also through their influence on metabolism. Most striking reduction of arterial tension follows the administration of a single grain of calomel, pilula hydrargyri, or hydrargyrum cum cretâ nightly or every second or third night, with just sufficient of one or other of the vegetable or saline aperients to secure an efficient action of the bowels. Colchicum or ipecacuanha seems to enhance the vaso-dilating effect. The iodides, in addition to lowering the tension by promoting elimination, may have some resolvent effect on the chronic aortitis which impairs the elasticity of the aorta and blocks the mouths of the coronary arteries.

The mild mercurial aperients and the iodides, then, form the basis of the medicinal treatment of the cardio-vascular condition which gives rise to angina. With them will be associated tonics or other remedies which may be indicated by functional derangement of any kind. Quite the most important of these is dyspepsia with flatulent distension of the stomach. The direct vascular relaxants, amyl nitrite and nitro-glycerine, are invaluable for the relief of the paroxysms but their influence on the blood pressure is far too brief to have any beneficial effect on the arterial tension. The nitrites and erythrol-tetranitrate have a more persistent vaso-dilator effect and seem in some cases to aid materially in diminishing the frequency and severity of the paroxysms. A medical friend to whom I recommended the erythrol attributed to it immunity from attacks which he enjoyed for many years. A single recent case of aortic stenosis and insufficiency may be related.

CASE 5.—An officer, aged 31 years, consulted me on Nov. 9th, 1904, on account of pain on exertion or change of temperature, beginning in the left elbow, shooting up to the neck, and extending to the cardiac region. He might have this pain on waking from a dream in the early morning. He presented all the physical signs of combined aortic insufficiency and stenosis. The pulse was visible but full between the beats and not collapsing but bisferiens in character; there were a distinct carotid throb, great hypertrophy and dilatation of the left ventricle, reduplication of the first sound in the apex region which could be felt as well as heard, loud double aortic murmur, the diastolic murmur being conducted down the sternum rather than towards the apex, and entire absence of the aortic second sound. The history was remarkable. He had never had rheumatism or syphilis or fever; he had served six years in India and five in South Africa and was in Ladysmith during the siege. The pain came on some time afterwards, 18 months before he consulted me, and at first was severe at night after a hard day's work and was gone in the morning. It had only assumed the characteristic features of angina after his return to England in March, 1904. He looked old and battered. His complexion was sallow with red patches. As he sat the head could be seen to move with each heart beat and the crossed leg was kicked forwards.

The first two cases of angina without valvular lesion are brought together as contrasts. In one a sudden fatal

[1] is case is published in our present issue, p. 1412.—ED. L.

[2] I was at one time disposed to speak of this class of angina as vaso-motor, in contradistinction to angina from fatty degeneration of the heart but the term is employed by various writers in a different sense.

termination took place before any considerable change could be recognised in the aorta, illustrating early implication of the coronary arteries; in the other the aorta was enormously dilated and angina had existed for years without proving fatal.

CASE 6.—A woman, aged about 60 years, whom I had seen from time to time from 1892 for gouty pain and who had well-marked Heberden's nodules, complained for the first time in July, 1896, of pain behind the sternum and down the left arm on going upstairs. She was particularly liable to this in the afternoon. She suffered from obstinate constipation and looked older than her years. The pulse was very tense, the apex beat and right ventricle impulse were powerful, and the sounds were loud, the aortic second being accentuated. Hydrargyrum cum cretâ with extractum colchici and pilula colocynthidis cum hyoscyamo were given two or three times a week and arsenic and strychnine after food. Two months later she was much better and rarely had pain. In December, all treatment having been given up, she got up from her chair one afternoon and was walking across the room an hour after rather a large meal of minced chicken and mashed potatoes when she fell forwards dead.

CASE 7. *Angina; dilated aorta.*—A City man, aged 58 years, complained of gradually increasing pain in the cardiac region on exertion, shooting to the back and left shoulder and down the left arm. He has now to stop after walking 20 or 30 yards. The pain is more easily induced after food. He can lie down and has no pain lying or sitting. He had been compelled to give up business 18 months previously on account of the pain and had suffered from it for about five years altogether. Except that he was pale he did not look ill. The pulse was sudden, short, and unsustained, suggestive of aortic regurgitation; the artery was large and thin-walled, not emptying when the hand was raised. There was no visible carotid throb but the brachials were tortuous and visible at the bend of the elbow. No impulse or apex beat could be felt. The dimensions of the heart were not much altered but there was dulness for three quarters of an inch to the right of the upper sternum and here the second sound was loud and ringing with a musical tone. This second sound could be followed across the manubrium to the pulmonic area, showing that the aorta was dilated and thin-walled along the whole of the arch. The first sound was short; the tracheal breath sounds were conducted to the manubrium by the enlarged vessel but no tracheal tug was detected. A month later, after taking iodide of potassium (three grains), liquor arsenicalis (five minims), with tinctura cinchonæ composita and spiritus ætheris nitrosi, and resting more, he had much less pain but on exertion he had perfectly characteristic angina. The physical signs were the same but a slight tracheal tug could be felt and the left jugular vein was full and did not empty on deep inspiration so that the innominate of this side was compressed.

CASE 8. *Sudden death.*—An engineer, aged 57 years, was first seen in September, 1904. He had suffered from pain across the upper chest since August, at first while walking home after the day's work, which was hard and responsible, and more recently two or three times in the day. The pain did not shoot down the arm. The pulse was small and full between the beats; there was no apex beat or cardiac impulse but the dulness extended to the left of the normal limits. The first sound was weak, the aortic second accentuated and reinforced along the course of the arch. A slight tracheal tug could be felt. Rest and change were ordered; a mild mercurial aperient was given every other night or twice a week, as were small doses of potassium iodide. Erythrol tetranitrate was also ordered to be taken. Two months later, after giving up work and spending a month at Bournemouth, he was apparently better. He had intervals of three or four days between the attacks of pain and they often occurred between 3 and 6 A.M., beginning with a sensation in both hands, severe pain then extending across the upper chest and lasting two or three minutes. The right radial and carotid pulse was larger than the left and there was evidence of increased dilatation of the third part of the arch of the aorta, in dulness to the left of the manubrium and reinforcement of the aortic second sound here. It had also a lower pitch and a ringing character. A slight tracheal tug was recognisable. There was no impulse or apex beat. The treatment was continued on the same lines. A month later he died suddenly.

The following case is given to illustrate angina from syphilitic disease of the aorta. It was not dilated and the blood pressure was not high.

CASE 9.—A man, aged 59 years, consulted me in June, 1899, for pain which, according to his own account, was always latent in his left arm about the elbow and was roused by slight exertion and was then felt in the cardiac region and shot up the neck into the shoulder and down the arm. It had been very severe and brought him to a standstill when walking. The pulse was weak and unsustained though the artery was full between the beats. It varied in volume and force. The dimensions of the heart were normal; no impulse or apex beat could be felt; the sounds were weak, the first was short, and the aortic second was scarcely audible; there was an indistinct reduplication of the second sound over the right ventricle. He was a *bon vivant*, but before I saw him had been cut off smoking, coffee, and brandy. There was a history of syphilis. A blister had been applied and he had taken potassium iodide with strychnine and spartein. Benzo-naphthol had also been given for the relief of flatulence. The pain was less severe than it had been but he always ceased to walk when it came on. He looked well and had a good appetite; he slept well. The iodide was continued in five-grain doses with arsenic, ammonia and bark, and pilula hydrargyri (one grain) with pilula rhei composita and hyoscyamus was given twice a week. Nitro-glycerine tabloids were taken when the pain was severe. I saw him at long intervals. No change of note took place in the symptoms or physical signs. After a time slight albuminuria, which appeared fitfully at first, became permanent, the specific gravity of the urine being about 1014. I saw him last in December, 1902, by which time he was confined to his room and he died suddenly shortly afterwards.

The opinion has been entertained that the condition of the heart commonly found after death from angina was fatty degeneration in association with calcareous degeneration of the coronary arteries. It is only in a certain proportion of the cases, however, that there is the advanced degeneration in which the fingers sink into the softened walls and the heart almost falls to pieces by its own weight. The physical signs of fatty heart are chiefly negative. The dimensions are normal unless fatty change has supervened in a heart previously hypertrophied or dilated. No impulse or apex beat can be felt; the first sound is short and weak; the second, both aortic and pulmonic, is also very weak. The interval between the first and second sounds may be shortened, the ventricle not going through with its systole. The rate may be slow. All these conditions, except, perhaps, the approximation of the first and second sounds, may be present in cardiac asthenia, particularly if the heart is overlapped by the lungs. Sometimes a fairly good second sound is so masked when the lungs meet in the middle line that it is scarcely audible, but it will be heard in the carotids. We do not, therefore, make a hasty diagnosis of fatty heart. The pulse may be of great assistance. A sustained pulse at once negatives advanced fatty degeneration. On the other hand, calcareous degeneration of the radials or a thin inelastic condition of the arterial walls will be confirmatory of degeneration of the heart. Paralysis of the diaphragm will be evidence in the same direction. Fatty heart and fatty diaphragm not infrequently go together. It has seemed to me that the paroxysms last longer in fatty degeneration of the heart. The two cases mentioned of agonising pain going on through the night were examples of this condition.

CASE 10. *Angina.*—A medical man, aged 50 years, consulted me in June, 1898. He had gout at the age of 24 years and some years previously to my seeing him had suffered from asthma, for which he had been twice to Mont Dore. He had for some time been subject to a burning sensation in the upper cardiac region on ascending an incline, or going upstairs, or walking against a wind, which brought him to a standstill and caused him to burst into a cold perspiration. A sensation radiated down both arms. Nitro-glycerine gave instant relief. The pulse was small but not otherwise noteworthy; in particular it was not tense. The dimensions of the heart were normal; there was no impulse or apex beat. The aortic second sound was slightly accentuated. He went to Homburg and on his return was so much better that he resumed work and could walk six or seven miles. Going uphill, however, or facing a wind, excitement, nervousness, or night air, brought on pain which he described as an exaggerated heartburn over the sternum with neuralgic radiations down both arms. I saw him again on Nov. 7th as on the 6th, after a railway journey and eating sandwiches at 9 P.M., he

had been seized at 4 A.M. by extremely severe pain. He had to get out of bed and kneel down and water ran out of his mouth. He had not his nitro-glycerine at hand and the pain lasted one and a half hours, when he got a tabloid and was at once relieved. The physical signs were as before, the sounds perhaps weaker. After undressing a post-systolic murmur of a frictional character was heard for a short time at the right second space which disappeared but was again reproduced on standing up. Potassium iodide was now given with arsenic and nux vomica. I saw him for the last time in January, 1899. He had continued to attend more or less to his practice but had recently had a return of pain in the centre of the chest and down the arms on very slight exertion. He had to rest after he got upstairs at night and again after taking off his drawers and socks, and he had had to stop two or three times between the Charing Cross Underground station and Northumberland-avenue. He had pain after undressing in my room, during which the pulse, previously soft, became small and the artery was full between the beats. He died the same night and the following instructive account of the final symptoms was sent to me by his partner:—

It appears that on his way home he was observed to be very ill by a fellow passenger who knew him and was so uncomfortable about him that he left his own compartment and went to the doctor's to see how he was. He found him in severe pain and perspiring freely about his face and offered to get him brandy but the doctor said he would rather push on and get home. I have no doubt that he had an attack of angina in the carriage although he did not mention the fact to his wife or myself on his arrival home.

I was called to him about 11 o'clock the same night. I found him sitting up, swaying to and fro in bed, groaning with intense pain in his chest which, he said, was quite unendurable. His face was livid and dripping with perspiration, his hands cold, and the index finger of the right hand was white, icy cold, and "dead," like the syncopal stage of Raynaud's disease. His radial artery was very hard and contracted—he usually had a full soft pulse in my experience—and the pulse irregular and intermittent with long intervals between. The breathing was also irregular, jerky, and gasping, which I attributed to the pain. He was holding a handkerchief containing nitrite of amyl to his nostrils but said it did not afford the least relief and begged urgently for morphia. I gave him three minims of the hypodermic solution at once but it gave no relief and he demanded more. After waiting a quarter of an hour in the hope that some relief might ensue, he suffering all the time agonising pain, I gave him another three minims. This still produced no effect beyond making him vomit which added to his distress. The pain still continuing, he asked for a further dose. I persuaded him first to try the effect of hot stimulant—whisky, two ounces in hot water—hoping thereby to obtain vaso-motor relaxation, but this, too, failed to ease him and I accordingly acquiesced in his demand for a further dose and gave him two minims more. This appeared to give some relief. The paroxysms became less continuous, the pulse relaxed and became fuller, and the intermissions were less prolonged. His hands became warmer and the "dead" finger became a natural colour. I hoped now he was about to obtain relief, but not so. In a short time the pain returned again and I dreaded that its violence would reflexly inhibit the heart or cause syncope and temporised by making hot applications to the chest, giving more hot stimulants and trying the amyl inhalation, but the pain persisted and he again became urgent in demanding more morphia. Seeing no avenue of escape I then gave him an additional two minims, making ten minims in all. This last dose gave again some relief but the pulse did not improve nor did the breathing. He tried to rest but still groaned with evident pain and the breathing was now Cheyne-Stokes in rhythm. After half an hour's troubled rest I asked him if he was easier and he nodded to the effect that he was. His pulse, however, which I had been constantly watching, now became so intermittent that I asked his wife—not daring to give more alcohol—to make some strong coffee to inject as a cardiac stimulant and meantime gave him a hypodermic of strychnine. While feeling his pulse at this time I noticed a dangerously prolonged intermission and saw that his pupils had dilated and that he had become pale. Recognising syncope I lowered his head and commenced artificial respiration, injecting coffee and whisky per rectum. His breathing became partially restored and the pulse also rallied again and there was a slight effort on his part to speak to me but soon after the pulse stopped finally.

I have spoken of dilatation of the stomach as capable of giving rise to attacks closely simulating the paroxysms of true angina. This condition may in cases of angina or of any serious heart disease precipitate the final event and be the immediate cause of a fatal issue. Naturally, also, it may contribute to bring on attacks, as, indeed, may a hearty meal. In almost all cases angina is induced more readily by exercise soon after food. This makes it very important that the upper limit of the gastric resonance should be carefully ascertained in all cases of angina.

I have actually witnessed a death due to dilatation of the stomach. I was asked to see a patient a short distance from town. From the description of the case, which was clear and accurate in every detail, it was obviously one of true angina and probably of fatty heart. The stomach was seen to be distended and in the course of the examination it had just been pointed out that the upper line of resonance corresponded with the fifth rib and the base of the ensiform when the patient became slightly convulsed and unconscious and died before our eyes.

CASE 11.—A man, aged 73½ years, was seized with pain in the chest and shortness of breath on his way to the City on Nov. 28th, 1894, and turned aside to consult me. He had shot during the autumn and the first time he had any symptoms of the kind was not more than ten days previously, but from the 25th he had had pain, shortness of breath, and a sense of hollowness on walking each day. The dimensions and sounds of the heart were normal, the stomach resonance came very high and was extensive. He went into the city against my advice and later in the day took a railway journey into the country. He died suddenly on going to bed that night after a heavy dinner.

Lecture
ON
THE TREATMENT OF PUERPERAL INFECTION.

Delivered at the Medical Graduates' College and Polyclinic on March 8th, 1905.

BY FREDERICK J. McCANN, M.D. EDIN., F.R.C.S. ENG., M.R.C.P. LOND.,
PHYSICIAN TO IN-PATIENTS, SAMARITAN FREE HOSPITAL FOR WOMEN, LONDON.

GENTLEMEN,—Nothing has so much retarded progress in the elucidation of the causation of the so-called puerperal fever as the repeated attempts made to prove that it is a special disease differing from infection of wounds in other situations in the body. This has also affected to a great extent the rational treatment of the disease, whether that treatment be prophylactic or curative.

Childbed fever is wound fever due to the action of bacteria implanted in the wounds of the genital tract following delivery of the child. No conditions could be more favourable for the spread of infection than those which obtain in the genital passages after labour. There are wounds of the perineum of varying degree, wounds of the vagina, and wounds of the cervix. Added to these the interior of the uterus is a large, hollow wound lined by loose tissue in which the spaces are filled with blood and serum and at the placental site recent thrombi hang into the cavity. Further, the increased development of the lymphatic and vascular system of the uterus and the rapid changes occurring during the puerperium favour the spread of infection, whilst the proximity of that large lymph sac, the peritoneal cavity, constitutes a special danger.

Although there may not be large tears present in the cervix, vagina, or perineum after every labour there are innumerable small tears and fissures and surfaces from which the epithelium has been shed. If in addition the passages have been devitalised by long-continued pressure or instrumental manipulation bacteria will grow and flourish in greater profusion. The principal sites of infection are: (1) the interior of the uterus, especially the placental area; (2) the cervix; and (3) the vagina and perineum. The same organisms which produce infection of wounds in the body generally are found to be the cause of puerperal infection and they are: (1) streptococci; (2) staphylococci; (3) bacillus coli communis; (4) gonococci; and various putrefactive organisms. Krönig, examining 179 cases of puerperal endometritis bacteriologically, gives the following results: 1. Pyogenic, 79 cases—75 due to streptococci and four due to staphylococci. 2. Gonorrhœal, 50 cases. 3. Sapræmia, 50 cases. In 43 the organisms did not grow in the usual culture media, 32 of them being pure anaerobes.

As in wound fever, so in childbed fever two principal varieties may be distinguished: (*a*) Wound intoxication; and (*b*) wound infection.

(*a*) *Wound intoxication.*—This is produced by organisms growing in dead matter (blood, wound secretions, necrosing placenta). During their growth these organisms manufacture certain poisonous substances which, when absorbed, cause a putrid intoxication, to which the term "sapræmia"

(Matthews Duncan) has been applied. Examples of wound intoxication are not uncommon in practice and are seen after abortion or full-time labour where portions of placenta or membrane retained in utero have become infected. The body temperature rises to 102° or 103° F., with or without a preceding rigor. The patient looks and feels ill; her pulse is rapid and she is drowsy, although natural sleep may be absent. There may be an icteric tinge in the skin, nausea or vomiting, and diarrhœa with offensive stools. The offending piece of dead tissue is removed and all may be well. If, however, the necrotic change in the interior of the uterus is widespread a condition is produced to which the term "putrid endometritis" is applied. Lining the interior of the uterus there is a well-marked layer of necrotic material, dirty greyish-green in colour, containing in its superficial portions various saprophytic organisms. Beneath the necrotic layer a well-marked layer of leucocytes exists, forming a granulation wall (nature's barrier) which prevents the further invasion of the saprophytes, protects the living tissues, and hastens the separation of the necrosed tissue.

Wound intoxication does not necessarily imply retention of necrosing tissue but may be caused by retention of the lochial discharge in utero—lochia metra; indeed, retention of the lochial discharge in utero is the commonest cause of one-day fever during childbed. The amount of retained discharge in utero may be considerable and in one case which I saw in consultation, after passing a dilator into the uterine cavity, a coffee cupful of pus was evacuated. Such retention is easily caused by a blood clot or piece of membrane obstructing the outflow of the discharge. Changes in the bladder and bowel, and even "getting up too soon," have been held to explain this retention.[1] The possibility of ante-partum infection of the liquor amnii where early rupture of the membranes has occurred must also be borne in mind. Occasionally gas-producing bacilli find their way into the uterus, producing the condition known as "tympania uteri."

(*b*) *Puerperal wound infection.*—Under this head are included the severe and frequently fatal examples of so-called "puerperal fever." The vast majority of such cases are due to streptococcal invasion, the streptococcus being the organism already well known to surgeons as the cause of erysipelas, phlegmon, pyæmia, and septicæmia. The following scheme serves to outline the methods of puerperal wound infection: 1. Local changes: infection of the wounds in the perineum, vagina, cervix, and of the endometrium. 2. Spread of the infection from the wounds: (*a*) by the blood-vessels producing thrombo-phlebitis, pyæmia, and septicæmia; and (*b*) by the lymphatics producing suppurative metritis (metritis dissecans), puerperal parametritis, perimetritis, and peritonitis.

Of the local changes the so-called puerperal ulcers are of importance. These ulcers are greyish-white in colour, vary in thickness, and are situated in the vulva, vagina, and cervix. Such ulcers have been misnamed "diphtheritic," but it must be remembered that the diphtheria bacillus plays no part in their causation, although this bacillus has now been proved to be one of the rarer causes of puerperal infection. These ulcers have the same structure as putrid endometritis, if allowance be made for the alteration in anatomical position—i.e., beneath the grey slough there also exists a granulation wall exerting a beneficent protective action. The rapidity in the growth of the streptococci is so marked that in a short time the whole genital tract becomes infected. If the original infection be situated in the cervix and endometrium the uterine discharge soon infects any wounds of the vagina and vulva, whereas infection of the vulva may be observed to have spread within 24 hours to the uterine cavity. The discharge from the "puerperal ulcers" is a small quantity of thin sero-pus until a well-marked granulation wall forms, when the discharge becomes more profuse and purulent in character. The more profuse the discharge of pus and the sooner it occurs the better the prognosis. When the uterine cavity is invaded a condition is produced to which the term "streptococcal or septic endometritis" is applied. Lining the cavity is a thin necrotic layer teeming with micro-organisms; beneath this an imperfect, small-cell infiltration layer (granulation wall), whilst micro-organisms permeate the muscular wall to the peritoneal coat, spreading along the lymphatics. When healing occurs the granulation layer becomes well developed, playing the part of an efficient filter. The infection may spread to the tubes and from occlusion of the abdominal ostia accumulation of pus follows, leading to the formation of a pyosalpinx. The placental site is, however, the important position from which a rapid spread of the poison takes place. The results produced through the spread of infection by the blood-vessels and lymphatics have already been mentioned but it is necessary to indicate what is meant by the term metritis dissecans. In this condition the uterine wall becomes infiltrated with pus and actual abscess formation—a true uterine abscess—may develop.

Having outlined the pathological anatomy, we now turn to the all-important question of treatment. All are agreed that prophylactic treatment is of prime importance, for if thoroughly and conscientiously carried out, puerperal infection will become an extremely rare disease. A labour should be conducted with the same care as one of the capital operations in surgery and the more clearly this is understood and appreciated by medical men and nurses the less will be heard about puerperal infection. It is difficult to make a naturally careless person, whether medical or lay, into a careful person, hence it is necessary to formulate rules for prophylactic treatment. 1. Careful antiseptic precautions before, during, and after labour. 2. Examine per vaginam as seldom as possible. Employ the abdominal method as an alternative. 3. Avoid prophylactic douches unless there be a gonorrhœal or septic discharge. 4. Repair all perineal lacerations after delivery. 5. Nurses should not be permitted to examine and all douches should be given under direct medical supervision.

The method of infection is, in the overwhelming number of cases, *contact infection*, and therefore anything which is brought in contact with the patient must be surgically clean. Many observers blame sewer gas as a cause of infection. I have never seen a case which I believed to be due to sewer gas and I have grave doubts if it ever causes puerperal infection. In arriving at a decision in this matter contact infection would have to be excluded. Concerning the necessity of restricting the number of vaginal examinations I fancy all are agreed, but it is of even greater importance to appreciate the necessity of surgical cleanliness before an examination is made. I am convinced that many men do not trouble to cleanse their hands properly before making an examination. The care of the hands should be an important duty in the life of every medical man. There is no excuse for a medical practitioner having dirty hands or nails, whatever class of practice he may possess. In the conduct of the third stage of labour it is imperative to refrain from contact with the genital tract except hæmorrhage or adherent placenta call for local manual treatment. The repair of perineal lacerations is an important aid in retarding the risks of infection and for this purpose silkworm gut[2] is the best suture material to employ. If the tear involve the rectum catgut should be used for the rectal sutures. With regard to the administration of douches some may say that a busy practitioner has not time to be able to exercise supervision. It is, however, better to avoid douching than to have a douche carelessly administered. Some years ago I suggested the employment of injections of serum as a prophylactic in cases where septic complications were likely to occur, in order to anticipate some of the dire results which may accrue. This special mode of employing serum will increase in usefulness when more trustworthy preparations are obtainable.

The curative treatment may be divided into (*a*) local treatment; and (*b*) general treatment.

Local treatment. 1. *Putrid endometritis.*—It is difficult to determine where a case of sapræmia ends and one of septicæmia begins, for the two processes may be combined. Hence it is a good rule in practice that when the temperature rises to 102° F. and is not due to other obvious causes sepsis should be suspected, the interior of the uterus explored, and a careful bimanual examination made of the appendages and broad ligaments.

In treating cases of puerperal infection it is necessary to do the work thoroughly and for this reason the patient should have an anæsthetic. It is far better to clean out the interior of the uterus once thoroughly than to make several more or less ineffectual trials without an anæsthetic. A medical man can always obtain a colleague to give the

[1] Producing a kink in the uterine canal.

[2] Silkworm gut should be boiled for half an hour and then placed in a solution of 1 in 1000 corrosive sublimate. It can be carried in the obstetric bag, contained in a small stoppered bottle.

anæsthetic, and this additional trouble is well repaid if it prevents a death during the puerperium, than which there is nothing more harmful to the practitioner's reputation. Having anæsthetised the patient and placed her in the lithotomy position you should systematically cleanse the genital tract from the vulva to the fundus of the uterus. The external genitals should be washed with soap and water (preferably ether soap) and after removal of the soap, swabbed with pledgets of wool, soaked in 1 in 2000 corrosive sublimate lotion. The vulvar hairs should be cut short and carefully cleansed, or if the patient is very dirty the vulva should be shaved. If the perineal wound has suppurated all stitches should be removed at once in order to establish free drainage. "Puerperal ulcers," wherever situated, should be touched with tincture of iodine or pure carbolic acid. The vaginal canal should be swabbed out carefully with 1 in 2000 corrosive sublimate, and in doing this, as in all other manipulations adopted in the treatment of these cases, the utmost gentleness should be employed so as to avoid opening up fresh surfaces for infection. Any attempt at "violent swabbing" should be unhesitatingly condemned.

I have found the employment of rubber gloves to be of great service in the treatment of puerperal infection. These gloves should be boiled in a clean pot for five minutes and are easily slipped on the hands after dipping into a solution of lysol. The rubber gloves protect your own hands, protect your patient, and protect your other patients from being infected. Whereas it is universally recognised that hand sterilisation is probably impossible, rubber gloves can be rendered sterile, and as there is little risk of puncture they are specially suitable for puerperal cases. Their cost is small—*2s. 6d.*—and I would recommend every practitioner to buy two or three pairs. At the same time it is essential to cleanse the hands as carefully as if gloves were not to be worn. I do not put on the gloves until I have cleansed the external genitals. The posterior vaginal wall is retracted by means of a metal speculum. All the instruments employed should be made of metal throughout. They should be boiled for half an hour, then placed in a solution of 1 in 40 carbolic lotion ready for use. The cervix is now seized with a vulsellum but the uterus should not be pulled downwards to any great extent. If the cervix is not sufficiently dilated one or two metal dilators should be passed in order to facilitate the introduction of the finger.

In palpating the interior of the uterus it is an advantage to use the middle finger and at the same time with the external hand to push the fundus of the uterus slightly backwards. Aided by the straightening of the uterine canal thus produced and the increased length of the middle finger a more thorough exploration of the cavity can be obtained. With the finger in utero you determine if there be anything in the cavity; and here let me say that if there be some retained product in utero and you remove it the patient will probably get well. The bad cases are those where nothing is found in the cavity of the uterus. In the vast majority of cases the finger is quite able to remove any retained products and no instrument is required. After this digital exploration the uterine cavity should be swabbed out with pledgets of wool or small squares of gauze.[3] These should be prepared ready in a bowl of 1 in 4000 corrosive sublimate. They are partially wrung dry and then wound round a pair of long uterine forceps and used gently to swab the interior of the uterine cavity. The meshes in the gauze are advantageous in removing smaller pieces of tissue. These swabs are applied until the uterus is thoroughly cleansed and if carefully done this is most effectual. This method, which I have employed for several years, obviates the necessity of using an intra-uterine douche and is, I believe, more effectual. There is the further advantage that the only instrument required is a pair of long forceps. I do not advise packing the interior of the uterus with gauze, although if carefully done there is no serious objection to its use. The gauze should be removed in 48 hours. If an intra-uterine douche be employed the same precautions as to gentleness and thoroughness are required. The solution should be weak and used in large quantity—four or five pints of a 1 per cent. lysol solution or a 50 per cent. solution of alcohol. Boiled water or normal salt solution (a teaspoonful of common salt to the pint of water) is convenient to use, but unless it has been possible to carry out all the manipulations with great care and cleanliness it is better to employ the former solutions. I have said nothing about the use of the curette in the treatment of these cases. The finger can easily remove what should come away, whilst the curette only opens up fresh channels of infection. Moreover, the uterine wall is so soft that it is necessary to be very careful lest considerable damage should be done. If curetting be attempted a blunt instrument should be used with great gentleness.

Whatever method of intra-uterine treatment be adopted it is well to give the patient vaginal douches twice daily of 1 in 4000 corrosive sublimate which wash away any discharge accumulating in the vaginal canal. The administration of ergot is helpful in promoting uterine involution. As has been said, the majority of cases of putrid endometritis if intelligently treated get well. It is otherwise with the second group of cases—viz., those of septic or streptococcal endometritis.

2. *Septic endometritis.*—The local treatment of these cases is carried out on the principles already detailed in the treatment of putrid endometritis. Here, however, the curette should certainly not be used, as the micro-organisms have already penetrated deeply into the uterine muscle and are beyond the reach of intra-uterine treatment. On examining the interior of the uterus it will probably be found to be quite smooth and it is these cases which are the most dangerous. Careful swabbing of the interior of the uterus should be employed, as has already been described, and for these cases also it is to be preferred to douching. Intra-uterine douching[4] is, however, largely practised and some authorities claim to have had good results from constant irrigation with very weak solution—e.g., 2 per cent. boric acid. Whichever method be employed it is better to be done once thoroughly than to make repeated ineffectual attempts. Indeed, there is a distinct danger in subjecting these patients to too much local treatment, for where there is a general infection other means must be employed to combat the microbic invasion. Intra-uterine treatment is further contra-indicated where septic phlebitis or parametritis exists.

It must be clearly understood that there are considerable shock and constitutional disturbance associated with intra-uterine treatment in puerperal infection. The temperature usually rises and even a rigor may occur, although there may be ultimately a fall in the temperature. For this reason it is important that the patient should not be too frequently examined, as so often happens in bad cases. The anxious friends are probably desirous of obtaining another opinion if the patient is not rapidly improving and probably the interior of the uterus is again explored. I am convinced that many patients would do well if they were really left alone, as rest is one of the best of all therapeutic agents. If there be a widespread infection local intra-uterine treatment will not avail and if the uterus has been once explored and proved to contain nothing no further intra-uterine manipulation should be attempted.

General treatment: Serum.—It must be admitted that up to the present time the results obtained from the employment of serum have been disappointing. Moreover, in the majority of published cases other methods of treatment had been employed, thus rendering it difficult to determine the particular rôle played by the serum treatment. Recently more scientific methods have prevailed and by cultures made from the lochial discharge it is possible to determine the variety of micro-organisms present. This is a most important step and although a trustworthy serum has not yet been produced no doubt further experiments will succeed in obtaining a trustworthy polyvalent serum. The serum may, as already suggested, be employed as a prophylactic where septic complications are likely to occur—e.g., serious obstetrical operations. In other cases it is necessary to begin this treatment early in the disease, giving 20 cubic centimetres two or three times in the 24 hours if needful. Professor Bumm[5] of Berlin has recently published in the *Münchener Medicinische Wochenschrift* for 1904, No. 25, the results of treatment with Aronsohn's serum, which appear to be more encouraging; but still in the very severe cases no serum as yet manufactured seems to be efficient. It is, however, to be hoped that an efficient serum may yet be put upon the market.

In the treatment of puerperal infection it is necessary to maintain the patient's strength by the frequent administration

[3] French obstetricians employ an instrument like a bottle brush made of strong quills called an "écouvillon."

[4] 50 per cent. alcohol, 1 per cent. carbolic solution, 1 per cent. lysol.

[5] He finds the serum acts best in severe streptococcal endometritis, phlegmasia alba dolens, and pure septicæmia, without localisation.

of a fluid, easily digested diet and, above all, by the free administration of alcohol in large doses which are well borne in this disease. Tepid sponging with vinegar and water is comforting to the patient and tends to reduce the temperature. Immersing the patient in a cold bath for ten minutes, which is cooled gradually three degrees lower, followed by the employment of a cold douche, may be tried in desperate cases. Poultices applied to the hypogastrium are beneficial in peritonitic cases and for the same purpose ice-bags may be used. The subcutaneous injection of normal saline solution is a valuable remedy, assisting in the elimination of toxic material.

Drugs.—Quinine is still a drug upon which reliance may be placed in the treatment of puerperal infection but I do not recommend you to give it in very large doses, for I have found that smaller doses are quite as efficacious. Sulphate of quinine given in doses of from three to six grains every three or four hours, combined with carbonate of ammonia in an effervescent mixture, is a good prescription. To this may be added tincture of digitalis, tincture of nux vomica, or liquor strychninæ hydrochloratis, according to the condition of the pulse. This effervescent mixture can be taken even in the presence of the nausea and loathing of food which are so common in this disease. Another drug which is very valuable in puerperal infection is calomel which should be given in frequently repeated small doses in order to maintain a slight amount of diarrhœa.

In two severe cases which I recently saw in consultation the administration of calomel had more effect in reducing temperature than large doses of quinine. When quinine and calomel were given together the temperature fell and the patient appeared to be better, but when quinine was given alone no lowering effect on the temperature was noted; indeed, it became slightly elevated. Calomel was given alone and a marked improvement resulted. In one of these cases the temperature rose to 107° F., but under this treatment both patients completely recovered. During the administration of calomel you should watch for signs of mercurialism. This does not happen so frequently if diarrhœa is produced by the medicine. In one patient who exhibited marked tenderness of the gums the calomel did not produce diarrhœa. When signs of mercurialism exist the drug should be discontinued and sulphate of magnesia should be given. As the condition of the patient improves on the quinine and calomel treatment a change may be made and large doses of perchloride of iron may be substituted, together with sulphate of magnesia to keep the bowels acting regularly. If you give the perchloride of iron when there are nausea and slight vomiting it is not well borne by the stomach, whereas the effervescent quinine mixture rarely disagrees. I advise you, then, to begin with quinine and calomel and in the later stages to administer perchloride of iron and sulphate of magnesia. For the relief of pain, if severe, some preparation of opium may be required. You may inject morphine subcutaneously or give it in a suppository; but I believe it is better to be avoided. It is not wise to attempt to control the diarrhœa unless it is excessive and then the administration of Dover's powder will be found useful, given in doses of from ten to 30 grains.

Surgical treatment.—The presence of a purulent collection in the pelvis calls for prompt surgical treatment. Parametric abscesses must be opened and drained. Where the pus is situated in the lumen of the Fallopian tubes (pyosalpinx) or in the substance of the ovary (ovarian abscess) immediate operation is required. If the swellings are adherent and accessible from below the pus should be evacuated by vaginal section; in other cases the abdominal route is indicated. Hysterectomy has been advocated and adopted in the treatment of puerperal infection but it has only a limited application. Where a general infection is present the removal of the uterus is not only attended by very grave risk but could not be expected to benefit the patient. If, however, there is localised infection confined to the uterine walls hysterectomy is indicated and the results obtained are good. Abscess formation in the uterine walls and infected myomata are the conditions which usually call for this operation. In those distressing cases of criminal abortion where the uterine wall has been perforated hysterectomy might be tried if the general condition of the patient were favourable. As an adjunct to other methods of intra-uterine treatment, especially where peritonitis exists, an opening may be made into Douglas's pouch by incising the posterior vaginal wall. This method was strongly advocated by the late Dr. Pryor of New York, who also recommended packing the pelvis with gauze. It is better, however, to drain the pelvis with one strip of gauze which should be removed in 48 hours. A gauze drain acts well if the peritoneal effusion is serous. If it is purulent a tube is to be preferred.

A REPORT ON 100 CONSECUTIVE ABDOMINAL HYSTERECTOMIES (ATTENDED WITH RECOVERY), PERFORMED AT THE MIDDLESEX HOSPITAL AND THE CHELSEA HOSPITAL FOR WOMEN.

BY J. BLAND-SUTTON, F.R.C.S. ENG.,

SURGEON TO THE CHELSEA HOSPITAL FOR WOMEN; AND SURGEON TO OUT-PATIENTS, MIDDLESEX HOSPITAL.

SOME cynics among surgeons regard statistics as "lies in figures" calculated to impose upon the credulous. It is somewhat interesting in this connexion to mention that a statistician of some note who flourished in 1660, Herman Conring, was a professor of medicine and politics. It is quite certain that in medicine, using the term in its broadest sense, statistics or the "employment of figures" is an important means of investigation. Indeed, whatever view cynical writers take in regard to the use of statistics "it is impossible to get over the fact that in meteorology, medicine, and other physical sciences statistical inquiries are plainly and obviously examples of the employment of a method, like microscopy, spectrum analysis, or the use of the telescope" (Hooper). It is worth recalling that one of the earliest examples of statistical writing, from the medical point of view, in this country dealt with *Bills of Mortality* relating to London, 1666. In considering a statistical statement of any kind the first thing is to understand the point or points requiring elucidation and the source of the facts. The object of the present communication is to demonstrate that with the strict application of Listerian principles in the form known as aseptic surgery it is possible for a surgeon to perform abdominal hysterectomy successfully in a well-found hospital 100 times consecutively for a variety of uterine diseases. The abstracts of cases supporting this statement have been compared with the hospital books by the officials in charge of them at the time the operations were performed. Mr. F. Lionel Provis and Mr. J. Howell Evans allow me to state that they verified the references for the Chelsea Hospital for Women; whilst Dr. W. F. Victor Bonney and Mr. Aslett Baldwin sanction the statement that they have verified the references to the patients treated at the Middlesex Hospital. An account of the first 58 cases in the list appeared in the *Clinical Journal* of April 20th, 1904, p. 1, but in the present communication an additional (or supplemental) account is given of the patients' condition. For these subsequent notes I alone am responsible and the source of the information is given in all cases where the request met with success. Great care and pains have been taken to secure these reports in order to show that in the majority of instances the patients derived benefit from the operation, for it is necessary to remember that *recovery* from an operation is not always equivalent to *success* from an operation. A careful study of these supplemental reports is very instructive and shows that in the majority of cases the patients require six months or even a year to obtain the full benefit of the operation, especially those who were profoundly anæmic from profuse menorrhagia.

It is important to point out that these operations were not only performed in a public institution but were carried out in the hospital theatre accessible to qualified medical men and women; every operation in the list was witnessed by members of the profession other than those of the official staff of the hospital. In no case was an exploratory operation performed or any case abandoned as too difficult. Operative treatment was not refused to any patient save those with very extensive cancer and, except in this dreadful disease, there was no picking and choosing. Throughout this communication the term "sub-total hysterectomy" will replace the cumbersome expression "supravaginal hysterectomy" as signifying the removal of the body of the uterus with a

variable portion of its neck. This change of terms is desirable, for the operation which has given me the best results is not quite what would be called a "panhysterectomy" yet it is something much more than is usually covered by the phrase "supravaginal" hysterectomy. The careful study of the subsequent course of patients after supravaginal hysterectomy led observant operators to notice that those cases did best in whom the supravaginal cervix had been most freely removed; as a matter of fact, in the majority of my operations classed as supravaginal hysterectomy the only part of the uterus left is the vaginal portion of the cervix and after the operation is completed the united surfaces of the peritoneum merely appear as a slightly raised ridge across the pelvic floor, so that a surgeon inspecting the operation area from above would imagine that a total hysterectomy had been performed. On the other hand, if the cervix be examined from the vagina six months after the operation it will appear natural to the eye and touch. This is a matter of importance, as the operation in no way impairs the pelvic floor or hinders the function of the vagina. For this method the term in familar use among Parisian surgeons, "sub-total hysterectomy," is peculiarly suitable. The morbid conditions of the uterus which rendered radical operation necessary in these patients fall into five groups: fibroids and adenomyoma, 81; cancer, four; sarcoma, one; chronic inflammatory disease of the uterus, four; and fibrosis, ten cases; these causes indicate the widening scope of hysterectomy.

Fibroids.—In 81 patients hysterectomy was performed for these tumours, including two cases of the remarkable disease known as diffuse adenomyoma of the uterus. The commonest condition which induced these patients to submit to operation was profuse and long-continued bleeding from the uterus. The ages of the patients varied from 27 to 69 years. It is necessary to draw attention to the fact that out of a total of 81 hysterectomies for fibroids 13 of the patients had reached the age of 50 years and upwards and in each of them it was necessary to perform a serious operation for a disease which is generally believed to become harmless about the forty-eighth year of a woman's life. Two of these are worth some special remarks. Case 72 had been known to have a uterine fibroid many years and she ceased to menstruate in her fiftieth year. In consequence the tumour diminished very materially. When she attained her sixtieth year the fibroid began to cause so much trouble with the bowel and bladder that she had to seek relief. A large tumour blocked up the inlet of the pelvis and pushed the cervix low into the vagina. At the operation I found a large conical fibroid firmly fixed in the pelvis like a cork; it required a fair effort to extract it and, as in all those exceptional cases which require surgical interference after the menopause, the operation was singularly easy and almost bloodless. The tumour had a transverse diameter of 4½ inches, a vertical diameter of 5½ inches, and in horizontal circumference measured 13½ inches. The patient was a spinster of average proportions, so that these measurements will afford some indication of the tightness with which this fibroid blocked the pelvis.

The oldest case in this series is in some respects the most interesting. The patient (No. 91 in the list) had attained her sixty-ninth year and she knew for a quarter of a century that her abdomen contained a tumour which by its size and weight had been a source of great inconvenience and often actual distress. This woman when placed under my care had been suffering from profuse uterine hæmorrhage and it was on this account that she deliberately sought the aid of surgery. The tumour equalled in size and hardness the head of a man. She was very fat, had an umbilical hernia, and unfortunately her urine contained sugar to the extent of 12 grains to the ounce. By rest and diet the amount of sugar diminished and I performed hysterectomy. The uterus contained a fibroid with an average diameter of 12 inches (30 centimetres) which yielded the odour of stale fish and the uterine cavity contained a degenerating tumour with the microscopic characters of cancer. On account of the glycosuria the operation was quickly completed, occupying from the time the anæsthesia was begun to the application of the dressing 22 minutes. The patient recovered easily and quickly. She left the hospital on the eighteenth day for her home. In a letter reporting her subsequent condition Mr. J. C. R. Braine-Hartnell, in expressing his satisfaction that the operation had been undertaken, states that the previous 20 years of her life had been "20 years of misery." Such a case tells its own tale.

If I had been bent on selecting cases for the purpose of making good statistics it would have been easy in regard to this old lady to urge the presence of sugar in the urine as a bar to operation, and doubtless some practitioners would have deemed it a manifestation of surgical prudence. It is, however, useful to remember that operating on bad cases is very apt to ruin statistics but it frequently saves lives, and this is the main consideration.

Diffuse adenomyoma.—Among the fibroids there were two examples of this condition; they are included with them, because, in these two cases, the uterus also contained typical fibroids, and the clinical signs of the disease are indistinguishable from those which indicate the existence of submucous fibroids and the treatment eventually required is the same—namely, hysterectomy—on account of the long-continuing exhausting menorrhagia, which rest, drugs, and repeated curetting fail to cure.

A uterus in sagittal section showing diffuse adenomyoma, from a spinster 32 years of age. The gland spaces were cystic and filled with gelatinous material.

Fibrosis of the uterus.—The prominent symptom which renders hysterectomy necessary in this disease may be described as rebellious menorrhagia, for it defies rest, drugs, and repeated curettings. Dr. A. H. Freeland Barbour recently brought a case of this disease before the Obstetrical Society of Edinburgh[1] and the communication clearly shows that he appreciates the leading features of the morbid anatomy of this affection, which, as he states, is essentially one affecting the arteries of the endometrium before the menopause. Dr. Barbour also recognises the most important clinical aspect of the condition—namely, the manner in which the bleeding and the enlargement of the uterus simulate cancer of the corporeal endometrium and that in the way of treatment hysterectomy alone gives good results.

In the cases in the following list the operation performed was sub-total hysterectomy unless otherwise specified.

CASE 1.—A single woman, aged 49 years; fibroid; profound anæmia; Jan. 19th, 1903. This patient had been an invalid for several years. She writes, Jan. 10th, 1905: "I have been earning my living as a governess housekeeper and never had one day in bed since the first month after the operation."

CASE 2.—A married woman, aged 33 years; fibroid; hæmorrhage and pain; Jan. 19th, 1903. Bilateral oöphorectomy had been performed five years previously for menorrhagia but without good consequences. Reported in good health from Africa Jan. 25th, 1905. Letter from medical attendant.

CASE 3.—A single woman, aged 44 years; fibroid; hæmorrhage; Jan. 19th, 1903. "I am better now than I have been for the last ten years and people cannot understand how it is that I look so well after all the misery that I have been through before the operation." Patient's letter, Jan. 7th, 1905.

CASE 4.—A married woman, aged 49 years; adenomyoma; Jan. 26th, 1903. "I saw the patient to-day; she expressed herself as feeling perfectly well; in fact, better than she had felt for years." Letter from medical attendant, Jan. 5th, 1905.

CASE 5.—A married woman, aged 45 years; fibroid; hæmorrhage; Feb. 2nd, 1903. "I consider that I am very fortunate to be so well as I am as I have had no pain in my stomach since the operation, the only

[1] THE LANCET, Jan. 21st, 1905, p. 163.

thing I perspire very much and flushing, but that is nothing to the pain I was in before the operation." Patient's letter, Jan. 11th, 1905.

CASE 6.—A married woman, aged 35 years. A very large fibroid; March 2nd, 1903. Reported herself on her birthday, Jan. 9th, 1905. In excellent health.

CASE 7.—A married woman, aged 35 years. Fibrosis; menorrhagia; March 2nd, 1903. In excellent health September, 1904, and placed her sister under my care for hysterectomy (see Case 82).

CASE 8.—An unmarried woman, aged 48 years. Fibroids; hæmorrhage; March 9th, 1903. Re-entered the hospital for vesical calculus, July, 1904. Uterine stump quite free from the bladder.

CASE 9.—An unmarried woman, aged 48 years. Fibroids; hæmorrhage; March 16th, 1903. Reported herself one month after operation with œdema of one leg.

CASE 10.—A married woman, aged 52 years. Fibroids; hæmorrhage; April 6th, 1903. "I really enjoy life, which I never did before." Patient's letter, Jan. 25th, 1905.

CASE 11.—A married woman, aged 35 years. Fibroids (? sarcoma), April 13th, 1903. In good health Jan. 10th, 1905. Letter from patient.

CASE 12.—An unmarried woman, aged 45 years. Large and rapidly growing fibroid; April 13th, 1903. This patient has been under treatment at home for recrudescence of disease in her knee which afflicted her when she was a child. Letter from patient, January, 1905.

CASE 13.—An unmarried woman, aged 35 years. Fibroids; hæmorrhage; April 20th, 1903. "My health is really good and strong, I am able to follow my work as a nurse (in a hospital for infectious diseases). Previous to operation my life was unbearable." Patient's letter, Jan. 16th, 1905.

CASE 14.—A married woman, aged 38 years. Fibroids; profound anæmia; May 4th, 1903. "My health is very satisfactory." Letter from patient, Jan. 6th, 1905.

CASE 15.—A married woman, aged 53 years. Fibroids; bilateral ovarian cysts; May 11th, 1903. "I have greatly improved." Patient's letter, Jan. 7th, 1905.

CASE 16.—A married woman, aged 37 years. Fibroids; bilateral pyosalpinx; May 11th, 1903. "I am in good health except that I have at times sharp pain in the right side of the abdomen." Letter from patient, Jan. 6th, 1905.

CASE 17.—A married woman, aged 43 years. Fibrosis; profuse menorrhagia; May 25th, 1903. "I am fairly well with the exception of frequent headaches and nerve troubles." Letter from patient, Jan. 15th, 1905.

CASE 18.—An unmarried woman, aged 49 years. Fibroids; profuse menorrhagia; June 1st, 1903. "She is perfectly well." Letter from medical attendant, Jan 5th, 1905.

CASE 19.—A married woman, aged 54 years. Fibrosis; menorrhagia; June 15th, 1903. Left for Ceylon some weeks later.

CASE 20.—An unmarried woman, aged 45 years. Fibroids, very large; July 6th, 1903. "Feeling better than I have for years." Jan. 8th, 1905.

CASE 21.—An unmarried woman, aged 47 years. Fibroids, very large, July 7th, 1903. In the October following (the operation) was able to commence work again. Patient's letter, Jan. 7th, 1905.

CASE 22.—An unmarried woman, aged 52 years. Fibroids, very large; July 11th, 1903. "I am very well." Jan. 7th, 1905.

CASE 23.—A married woman, aged 37 years. Fibroids; hæmorrhage; cyst of the right ovary; July 27th, 1903. (Middlesex Hospital.) "Enjoying the best of health." Patient's letter, Jan. 10th, 1905.

CASE 24.—An unmarried woman, aged 46 years. Cancer of the body of the uterus; August 3rd, 1903. (Middlesex Hospital.) Letter returned, "Gone away," Jan. 10th, 1905.

CASE 25.—An unmarried woman, aged 53 years. Fibroids and cancer of the body of the uterus; August 13th, 1903. (Middlesex Hospital.) This case was drained and she left hospital with a sinus. This closed some months later. She now complains of pain in the left side. Jan. 9th, 1905.

CASE 26.—A married woman, aged 46 years. Fibroid and ovarian dermoid; August 17th, 1903. (Middlesex Hospital.) "She enjoys better health than she has done for years." Letter from medical attendant. Jan. 10th, 1905.

CASE 27.—A married woman, aged 51 years. Fibroids; hæmorrhage; August 20th, 1903. (Middlesex Hospital.) "Is perfectly well as regards the operation for fibroids." Letter from medical attendant, Jan. 9th, 1905.

CASE 28.—An unmarried woman, aged 47 years. Fibroid, degenerating; hæmorrhage; Sept. 7th, 1903. "I am beginning to feel much stronger." Letter, Jan. 16th, 1905. As a matter of fact, I can state that this patient is very well.

CASE 29.—A married woman, aged 45 years. Fibroid, degenerating; hæmorrhage; Sept. 7th, 1903. "Her condition is much better than it has been for years." Letter from medical attendant, Jan. 6th, 1905.

CASE 30.—An unmarried woman, aged 42 years. Fibroid; profound anæmia; Sept. 7th, 1903. In good health, September, 1904. Personal visit.

CASE 31.—A married woman, aged 24 years. Septic endometritis; Sept. 7th, 1903. In good health when she left for Africa. Autumn, 1904.

CASE 32.—A widow, aged 49 years. Fibroid; cancer of tube; Sept. 14th, 1903. Known to be in good health six months later and contemplating re-marriage.

CASE 33.—A married woman, aged 32 years. Fibroid; hæmorrhage; Sept. 14th, 1903. "You will be pleased to hear that I was able to conduct and manage more business last summer than in any previous year." Jan. 7th, 1905.

CASE 34.—A married woman, aged 31 years. Fibroid; hæmorrhage and degeneration; Sept. 21st, 1903. "For the relief of the operation I am most thankful. I hardly know myself, I feel so well." Patient's letter, Jan. 26th, 1905.

CASE 35.—A married woman, aged 44 years. Fibrosis; hæmorrhage; Sept. 28th, 1903. Good report from medical attendant, Jan. 6th, 1905.

CASE 36.—An unmarried woman, aged 40 years. Fibroid; profound anæmia; Oct. 19th, 1903. Had some trouble from a stitch but is now all right. Jan. 13th, 1905.

CASE 37.—An unmarried woman, aged 23 years. Cancer of the cervix. Total hysterectomy, Nov. 2nd, 1903. Seen at frequent intervals since operation; in good health, October, 1904.

CASE 38.—A married woman, aged 33 years. Fibrosis. Suspected to be cancer of the cervix; Nov. 9th, 1903. She is first-rate, is fat, and looks well. Letter from medical attendant, Jan. 10th, 1905.

CASE 39.—A married woman, aged 38 years. Fibroid, very large. Dermoid; Nov. 16th, 1903. "I have now better health than I have ever had." Jan. 7th, 1905.

CASE 40.—An unmarried woman, aged 44 years. Fibroid, large and growing; Nov. 23rd, 1903. "Fräulein —— is so well since her operation." Letter from her friend (Case 1), Jan. 10th, 1905.

CASE 41.—An unmarried woman, aged 38 years. Fibroid: profound anæmia, Nov. 30th, 1903. "My condition is, on the whole, very satisfactory." Patient's letter, Jan. 11th, 1905.

CASE 42.—An unmarried woman, aged 55 years. Fibroids; pain; Jan. 11th, 1904. Convalescence slow, and Jan. 5th, 1905, her medical attendant writes: "Is now able to take up her school duties so that when we bear in mind the wreck she was at the time of the operation I think it is remarkable."

CASE 43.—An unmarried woman, aged 50 years. Cervix fibroid; retention of urine; Jan. 11th, 1904. "I still feel a weakness in the left side but beyond that I feel better and can walk better than I have done for some years." Letter from patient, Jan. 7th, 1905.

CASE 44.—An unmarried woman, aged 59 years. Cancer of the body of the uterus; total hysterectomy; Jan. 18th, 1904. Suspicions of a recurrence, March 18th, 1905. Letter from medical attendant.

CASE 45.—A married woman, aged 37 years. Fibroids, septic; Jan. 18th, 1904. In excellent health. Seen personally on Jan. 23rd, 1905.

CASE 46.—An unmarried woman, aged 42 years. Cervix fibroid; Jan. 25th, 1904. "My health is now excellent." Letter, Jan. 7th, 1905.

CASE 47.—A married woman, aged 52 years. Fibroids; hæmorrhage; Feb. 8th, 1904. Recovered slowly. "She looks the picture of health and feels quite well." Letter from medical attendant, April 2nd, 1905.

CASE 48.—A married woman, aged 42 years. Fibroids; profuse menorrhagia; Feb. 15th, 1904. Sent a post-card from the Matterhorn to show that she could climb a mountain in the summer, 1904.

CASE 49.—An unmarried woman, aged 37 years. Subserous fibroid and diffuse adenomyoma; very profuse menorrhagia; March 7th, 1904. This patient, a surgical nurse, suffered from asthma and it was thought that if the metrorrhagia was stopped the severity of the asthmatic attacks might be lessened. This hope has not been realised, though the patient's general condition is greatly improved.

CASE 50.—A married woman, aged 44 years. Fibroid; very large and painful; March 7th, 1904. This patient (a monthly nurse) writes, Jan. 16th, 1905: "I am pleased to say I am much better: the only thing I have to complain of, I have to hold my abdomen just by the navel when I cough or sneeze."

CASE 51.—An unmarried woman, aged 43 years. Fibroid; profuse metrorrhagia; March 14th, 1904. This patient, a surgical nurse, writes Jan. 16th, 1905: "Quite well, having no pain or discomfort of any kind."

CASE 52.—An unmarried woman, aged 42 years. Fibroid; excessive menstruation; anæmia; March 21st, 1904. "Patient never remembers feeling better." Letter from medical attendant Feb. 27th, 1905.

CASE 53.—A married woman, aged 33 years. Fibroid; menorrhagia; March 21st, 1904. Total hysterectomy. Good report from the patient March 1st, 1905.

CASE 54.—A married woman, aged 48 years. Fibroid; metrorrhagia; bilateral hydrosalpinx; March 21st, 1904. Patient is very well. Letter from medical attendant, Feb. 27th, 1905.

CASE 55.—A married woman, aged 45 years. Cervix fibroid; menorrhagia; March 28th, 1904. Patient reports herself in good health. Letter, Feb. 28th, 1905.

CASE 56.—A married woman, aged 43 years. Sarcomatous fibroid; intense pain; March 28th, 1904. Patient died in June, 1904. Dr. —— writes that she had much less pain after the operation.

CASE 57.—An unmarried woman, aged 29 years. Fibroid; soft myxomatous; menorrhagia; profound (toxic) anæmia; March 28th, 1904. Patient keeping in good health. Letter, Feb. 28th, 1905.

CASE 58.—An unmarried woman, aged 56 years. Fibroids; pain and dysuria; April 12th, 1904. Convalescence slow but satisfactory. Letter from patient, Feb. 27th, 1905.

CASE 59.—An unmarried woman, aged 32 years. Fibroids; menorrhagia and pain; April 12th, 1904. In good health December, 1904. Personal visit.

CASE 60.—A married woman, aged 52 years. Fibroids; excessive metrorrhagia; April 15th, 1904. Good report from the patient, Feb. 23rd, 1905.

CASE 61.—An unmarried woman, aged 30 years. Fibroids; pain; April 15th, 1904. This patient had two large parovarian cysts removed on March 16th, 1903; the left ovary was not removed, nor were there any evidences of fibroids. Soon after this operation she began to suffer from profuse menstruation and pain and the former became so profuse as to interfere with active life. She writes, Feb. 28th, 1905: "I am much better since my last operation."

CASE 62.—A married woman, aged 42 years. Fibroids; cystic ovaries and distended Fallopian tubes; April 16th, 1904. (Unable to trace this patient; she was in good condition when she left the hospital.)

CASE 63.—An unmarried woman, aged 41 years. Cervix fibroid; menorrhagia; cancer of the colon discovered in the course of the operation, April 18th, 1904. Resection of the sigmoid flexure for cancer in the Middlesex Hospital, September, 1904. The patient subsequently reported herself in good health.

CASE 64.—A married woman, aged 33 years. Chronic inflammatory disease of the uterus, tube, and ovaries; total hysterectomy, April 25th, 1904. Good report from the patient, Feb. 28th, 1905.

CASE 65.—A married woman, aged 31 years. Fibroids; red degeneration; pain and menorrhagia; May 2nd, 1904. April 2nd, 1905, the medical attendant writes: "She is now quite well, but a month or so after her return home she had an attack of hemiplegia which cleared up completely."

CASE 66.—A married woman, aged 40 years. Fibroids; profuse menorrhagia; May 9th, 1904. "Health much improved since the operation." Letter from patient, March 16th, 1905.

CASE 67.—A married woman, aged 33 years. Fibroids obstructing labour. Total hysterectomy during labour. May 9th, 1904. The patient was seen several times subsequently. In good health January, 1905.

CASE 68.—A married woman, aged 37 years. Cervix-fibroid; retention of urine; total hysterectomy and both ovaries removed May 16th, 1904. The patient made a slow convalescence. April 2nd, 1905, the medical attendant writes: "Looks very well; she has flushings and the symptoms of the menopause."

CASE 69.—An unmarried woman, aged 48 years. Fibroids; May 16th,

1904. In good health March 13th, 1905. Letter from medical attendant.

CASE 70.—An unmarried woman, aged 33 years. Fibroids, menorrhagia, pain; May 30th, 1904. Convalescence slow but satisfactory. Letter from patient, March 29th, 1905.

CASE 71.—An unmarried woman, aged 47 years. Fibroids; painful micturition; total hysterectomy, May 30th, 1904. "Health greatly improved since the operation." Letter, March 3rd, 1905.

CASE 72.—An unmarried woman, aged 60 years. Fibroid impacted in the pelvis; retention of urine; June 27th, 1904. The patient was much more comfortable since the operation. Her general health is not good. Letter, March, 3rd, 1905.

CASE 73.—A married woman, aged 48 years. Fibroids; profuse menorrhagia; July 4th, 1904. Reported herself at the hospital, Feb. 27th, 1905, in good health.

CASE 74.—A married woman, aged 48 years. Fibroids; menorrhagia; July 4th, 1904. The patient was reported well, Feb. 28th, 1905, by her medical attendant.

CASE 75.—A married woman, aged 38 years. Fibrosis; metrorrhagia; July 11th, 1904. "The patient is much better." Letter March 3rd, 1905.

CASE 76.—An unmarried woman, aged 40 years. Fibroids, pain, and frequent micturition; July 11th, 1904. "General health fairly good." Letter, March, 1905.

CASE 77.—An unmarried woman, aged 33 years. Fibroids; menorrhagia; July 11th, 1904. Convalescence slow. Letter, March 9th, 1905.

CASE 78.—An unmarried woman, aged 27 years. Fibroids, tumour thought to be a solid ovarian before operation, July 28th, 1904 (Middlesex Hospital). "I have been very much better in health since my operation." Letter from patient March 13th, 1905.

CASE 79.—An unmarried woman, aged 50 years. Septic uterus and hydrosalpinx; August 17th, 1904 (Middlesex Hospital). Personal visit in February, 1905. In good health.

CASE 80.—An unmarried woman, aged 51 years. Fibroids; profuse menorrhagia; August 24th, 1904 (Middlesex Hospital). The patient was very well March 2nd, 1905. Letter from medical attendant.

CASE 81.—A married woman, aged 39 years. Fibrosis; profuse menorrhagia; Sept. 12th, 1904. Reported to be in good health two months after leaving hospital.

CASE 82.—A married woman, aged 39 years. Fibrosis; menorrhagia; a chronic invalid; total hysterectomy, Sept. 26th, 1904. Convalescence slow but satisfactory. Letter March 29th, 1905.

CASE 83.—An unmarried woman, aged 40 years. Fibroids; metrorrhagia; Sept. 28th, 1904. (Middlesex Hospital.) The patient (a nurse in a county asylum) says she feels better than she has done for years. Letter, March 28th, 1905.

CASE 84.—A married woman, aged 40 years. Fibroids; metrorrhagia; total hysterectomy, Oct. 3rd, 1904. No report since leaving the hospital.

CASE 85.—A married woman, aged 48 years. Fibroids; septic; continuous metrorrhagia; total hysterectomy, Oct. 3rd, 1904. "Her health has improved wonderfully since the operation." The patient left for India in November. Letter from medical attendant March 3rd, 1905.

CASE 86.—A married woman, aged 34 years. Fibroids; Oct. 3rd, 1904. Very good report from the patient. Letter March, 1905.

CASE 87.—A married woman, aged 40 years. Cervix fibroid; tightly impacted and degenerated; Oct. 7th, 1904. The patient had done extraordinarily well; can do a hard day's work. Letter from medical attendant, March 31st, 1905.

CASE 88.—A married woman, aged 46 years. Fibroids; three of very large size and one impacted in the pelvis; Nov. 14th, 1904. "My wife is better now than she has been for years." Letter, March 6th, 1905.

CASE 89.—A married woman, aged 33 years. Fibrosis; persistent bleeding; Nov. 14th, 1904. Good report from the patient; March 31st, 1905.

CASE 90.—A married woman, aged 37 years. Fibroids; menorrhagia; marked anæmia; Nov. 21st, 1904. "My health is better than I have ever had it." Letter from patient, March 3rd, 1905.

CASE 91.—A married woman, aged 69 years. Fibroids; dangerous bleeding; diabetes; sugar ten grains to the ounce; cancer of the body of the uterus; Nov. 28th, 1904. Her medical attendant writes, April 6th, 1905, that the patient "is wonderfully well."

CASE 92.—A married woman, aged 30 years. Fibroids; profuse menorrhagia; marked anæmia; Nov. 28th, 1904. The patient made an excellent convalescence.

CASE 93.—An unmarried woman, aged 52 years. Fibroids; pain and menorrhagia; Dec. 5th, 1904. The patient has resumed her work as a nurse in a county asylum and is very well. Letter, March 28th, 1905.

CASE 94.—A married woman, aged 37 years. Septic uterus; active bilateral salpingitis; total hysterectomy, Dec. 5th, 1904. No report since leaving the hospital.

CASE 95.—A married woman, aged 44 years. Fibroids, small but numerous; profuse metrorrhagia; distended Fallopian tubes; total hysterectomy, Dec. 12th, 1904. The patient has done extraordinarily well. Letter from her medical attendant March 31st, 1905.

CASE 96.—An unmarried woman, aged 48 years. Fibroids; pain and frequent micturition; Dec. 19th, 1904. Good report from the patient Feb. 15th, 1905.

CASE 97.—A married woman, aged 35 years. Fibroids; menorrhagia; profound anæmia; Dec. 19th, 1904. Good report from the patient, March 10th, 1905.

CASE 98.—A married woman, aged 41 years. Fibroids; menorrhagia; anæmia; Dec. 19th, 1904. Letter from patient, Feb. 3rd, 1905. "Getting quite strong again."

CASE 99.—An unmarried woman, aged 40 years. Fibroids; hæmorrhage and anæmia; Dec. 20th, 1904. Good report from the patient.

CASE 100.—An unmarried woman, aged 52 years. Fibroids; hæmorrhage; Dec. 20th, 1904. "Much stronger and doing well." Letter from patient Feb. 3rd, 1905, and March 20th, 1905.

In addition to the 81 patients from whom the uterus was removed for fibroids and diffuse adenomyoma there were eight women in whom myomectomy or enucleation was performed, and one woman, aged 28 years, from whom a large soft fibroid weighing 14 pounds was removed from the round ligament of the uterus. This tumour grew into the abdomen like a subserous stalked fibroid. Each of these patients made an uninterrupted recovery. Myomectomy and enucleation are justifiable procedures in women contemplating marriage and in married women so anxious for offspring that they are willing to run serious risks on the chance of obtaining living children. Experience, however, teaches this stern lesson: after the enucleation of a fibroid in the procreative period of life a woman is 20 times more likely to grow more fibroids in her womb than to conceive successfully.

Brook-street, W.

ON PNEUMOCOCCAL SORE-THROAT WITH NOTES OF A FATAL CASE.

BY W. PASTEUR, M.D. LOND., F.R.C.P. LOND.,

PHYSICIAN TO THE MIDDLESEX HOSPITAL; CONSULTING PHYSICIAN TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN.

AMONG the acute inflammations of the faucial region there is one, pneumococcal angina, which has not apparently as yet received in this country the attention it deserves. At a recent public examination not a single candidate even mentioned this condition in discussing the differential diagnosis of diphtheria. Pneumococcal inflammations of the fauces and larynx are, however, well worthy of attention on account of the close clinical resemblance they may present to other acute inflammations of those regions, especially diphtheria.

The occurrence of inflammatory lesions of various mucous membranes, with or without membranous exudation, in association with pneumonia and broncho-pneumonia has been recognised for many years. A very remarkable case of this kind is recorded by Cary and Lyon.[1] But examples of primary inflammation of the faucial region are much more uncommon. Jaccoud,[2] T. K. Monro,[3] and others have placed on record cases of membranous sore-throat of pneumococcal origin which clinically were very like diphtheria. The appearances in the case I am about to relate differ widely from these and afford a good example of another variety of pneumococcal pharyngitis, the "angine érythémateuse pneumococcique" of French authors.

Referring to the probable frequency of acute membranous tonsillitis and pharyngitis of pneumococcal origin, Foulerton[4] remarks that "the exact bacteriological identification in these cases is rendered difficult by the fact that the organism is a frequent parasite of the healthy mouth. But the number of cases in which there are the formation of a false membrane and destruction of the superficial layer of the epithelial membrane associated with the presence of the coccus in predominant numbers and without any of the other bacteria—B. diphtheriæ, streptococcus pyogenes, and saccharomyces albicans—which are known to cause similar lesions, leaves little doubt as to the fairly frequent occurrence of an acute membranous pharyngitis due to this cause."

A healthy, well-nourished boy, aged three and a half years, was seized with sudden illness on Oct. 24th, 1903. The prominent symptoms were sore-throat with great pain on deglutition and high fever, which had persisted. There was no initial vomiting nor had there been any signs of laryngeal implication or of pulmonary trouble. He had only taken small quantities of milk with much difficulty. He was admitted to the Middlesex Hospital on the fourth day of illness in the following condition. The face was pale with a dusky malar flush. The respirations (40 per minute) were not laboured. The pulse (120) was soft, full, and regular. The glands at the angle of the jaw were moderately swollen on both sides and very tender. The skin was dry and hot (temperature, 103° F.). There were no signs of desquamation and no puffiness. There was no discharge from the nose or ears. A careful examination of the heart and lungs revealed no abnormal signs. A specimen of urine passed soon after admission gave a positive result to Ehrlich's diazo reaction; it was free from albumin. The uvula, soft palate, and faucial pillars on both sides were slightly œdematous and intensely red and glazed. Both tonsils were somewhat swollen and intensely injected. There were no exudation of any kind and

[1] American Journal of the Medical Sciences, September, 1901.
[2] Semaine Médicale, July, 1893.
[3] Glasgow Medical Journal, vol. lvi., p. 274.
[4] Transactions of the Pathological Society of London, vol. liii., p. 293.

no plugging of the follicles of the tonsils. The posterior wall of the pharynx could not be seen. The tongue was rather thickly furred and the breath was very offensive.

Progress of case.—6000 normal units of diphtheria antitoxin were injected on admission and a swab was taken from the throat for bacteriological examination. The temperature ranged high throughout the illness, exceeding 103° every day and only once falling as low as 101°. On Nov. 7th the appearance of the throat was much the same. There were no signs of exudation. The patient had great difficulty in swallowing and frequent regurgitation of fluid through the nose. The enlarged spleen could be felt below the ribs but it was not tender. The swab cultures yielded an abundance of micrococci but no bacilli were present. Widal's reaction gave a negative result. No signs of broncho-pneumonia were present. There were considerable enlargement and much tenderness of the glands at the angles of the jaw. On the 10th, attempts to feed through a nasal tube failed; nutrient enemata of milk and beef tea had been given since the 8th. On the 11th there were signs of cerebral irritation. The child was curled up to one side with the wrists flexed and the knees bent up. He strongly resented all interference, cried out at sudden noises, and had definite photophobia. No paralytic symptoms were observed. During the last two days the fœtor of the breath had increased and become distinctly gangrenous. On the 9th the throat was still intensely red and glistening, but to-day (11th) the whole of the uvula and the adjacent portions of the soft palate were brown and sloughing. There were no signs of peeling and the urine remained free from albumin. The nutrient enemata were omitted on account of rectal intolerance. On the 14th the temperature had been more remittent since the 11th and the patient was growing rapidly weaker. The throat was sprayed frequently with chlorine water but without appreciable effect on the fœtor and unsuccessful attempts had been made to irrigate the naso-pharynx with antiseptics. There was now a grey gangrenous slough involving the uvula and the palatal arches. The respirations had risen from 30 to over 70 per minute and signs of broncho-pneumonia had made their appearance in the left lung, both in the upper and lower lobes. Death took place on Nov. 15th, the twenty-second day of illness. There was slight diarrhœa during the last three days. There was no nasal discharge at any time.

Necropsy.—A post-mortem examination was made 31 hours after death, the weather being cold. The body was emaciated and somewhat rachitic. No beading of ribs could be seen. There was some excoriation at the right angle of the mouth. The whole of the soft palate, both pillars of the fauces, and the tonsils formed a large greenish gangrenous mass. The glotto-epiglottic fold and pyriform sinuses were also discoloured and bathed by a thin greenish purulent discharge. The sloughing area reached as far forwards as the hard palate. The glands at the angle of the jaw and those of the posterior triangles were much enlarged. The right pleura contained two and a half ounces of thin reddish pus. On the posterior aspect of the left pleura, just on a level with the bifurcation of the trachea, was a circular patch of softening. The œsophageal, bronchial, and mediastinal glands were enlarged. The bronchi were congested and contained some thick purulent exudation. The upper lobe of the left lung was congested. There was one small gangrenous patch on the posterior aspect. The lower lobe was riddled with patches of broncho-pneumonia which were becoming gangrenous. The largest gangrenous cavity was of the size of a hazel nut. There were similar changes in the right lung. A gangrenous patch of the size of a walnut was in the upper lobe and there were areas of collapse in the lower lobe. The heart was natural. The stomach was contracted and healthy. The œsophagus was healthy. The kidneys were somewhat enlarged and cloudy. There were cloudy swelling and much post-mortem discolouration in the liver. The spleen was enlarged and congested. As regards the head, the scalp, calvaria, and sinuses were natural. There were slight congestion of the pia-arachnoid and some excess of cerebro-spinal fluid. No meningitis was present. The brain substance was natural.

Bacteriology.—Cultures obtained post mortem from the pharynx and lungs were examined by Mr. A. G. R. Foulerton, who informed me that the diplococcus pneumoniæ was present in predominating numbers, together with a bacillus (probably the result of post-mortem infection) in smaller quantity. The diplococcus was tested on a mouse and found to be of normal pathogenicity for that animal.

The difficulties surrounding the clinical diagnosis in this case were very great. The child was too young and too desperately ill to permit of any really satisfactory examination of the naso-pharynx being made. Diphtheria antitoxin was injected as a precautionary measure only, for the sudden onset, severe initial symptoms, and persistent high temperature did not lend support to this view of the case. The absence of all exudation on the tonsils and fauces and the total absence of any signs of desquamation excluded the diagnosis of scarlet fever. On the whole, the appearance of the fauces and soft palate on admission more nearly resembled erysipelas than anything else but the very moderate degree of œdema militated strongly against this view. The possibility of a pneumococcal inflammation of the pharynx was carefully considered but could hardly be maintained in the face of the negative result of the first bacteriological examination. I am satisfied that the pharynx was the site of primary infection. The lungs were repeatedly examined and no signs of broncho-pneumonia or other lesion detected until the later stages of the illness when gangrene of the palate was already well marked.

The occurrence of gangrene in pneumococcal inflammations of mucous membranes is well established. Munro's patient recovered with a perforation of the faucial pillars and I may fitly refer here to a remarkable case which came under my notice some time ago and was placed on record by Foulerton.[6] The patient, aged 26 years, had suffered from a "quinsy" a fortnight before admission to the Middlesex Hospital and had been ill ever since. He died from pyæmia three days after admission. The necropsy revealed an almost universal pneumococcic gastritis, with extensive necrosis of the glandular layer of the mucous membrane of the stomach. There was a deepish ragged ulcer in the right tonsil. It seems probable that in this case the primary lesion was a pneumococcic infection of the right tonsil, though this was not proved bacteriologically.

I am indebted to my colleague, Dr. J. Kingston Fowler, for permission to mention a case of membranous laryngitis arising in connexion with an acute pneumococcal inflammation of the lungs. The patient, a man, aged 38 years, was admitted in the fourth week of an acute illness with signs of consolidation in the left lung. He lived for 34 days after admission, during which period the greater part of both lungs became consolidated. The necropsy revealed a very extensive pneumonia of both lungs with a small smooth-walled gangrenous cavity at the posterior apex of the left lower lobe. There was a patch of toughish adherent membrane on one of the vocal cords from which Mr. Foulerton obtained a pure culture of diplococcus pneumoniæ. This organism was also present in preponderating numbers in the cultures obtained from scrapings of the lung tissue just outside the cavity in the left lung. The patient had not presented any laryngeal symptoms.

A striking example of pneumococcal laryngitis has been recorded by Seuvre.[8] The case is that of a boy, aged eight years, in whom symptoms of laryngeal obstruction supervened in the course of an attack of "grippe." Tracheotomy had to be performed and pneumococcus in pure culture was obtained from pieces of membrane coughed up through the tracheotomy tube. It is clear from a consideration of recorded cases that pneumococcal pharyngitis may present different clinical forms. French observers who have paid some attention to the subject describe the following varieties:[7] (1) the suppurative; (2) the pseudo-membranous; (3) the follicular; (4) the inflammatory or erythematous; and (5) the herpetic.

The erythematous form was first described by Rendu and Boulloche.[9] The appearance of the fauces described by these observers agrees very closely indeed with that presented by my patient in the earlier stages of his illness. The etiology of their case was interesting. The patient, a nurse in a children's hospital, slept in a dormitory from which during the week preceding her illness three other nurses had been warded with acute pneumonia. Her illness developed very acutely with chills, intense headache, and high fever and subsided by crisis with profuse sweating and diuresis after a duration of only 36 hours. There were no pulmonary symptoms.

An altogether similar case is recorded by Gaultier[9] in a

[5] Loc. cit.

[6] Quoted by Cary and Lyon, loc. cit.

[7] Consult E. Gaultier, Thèse de Paris, 1896, and Sophie Weinberg, Thèse de Paris, 1895.

[8] Bulletin de la Société Médicale des Hôpitaux, May, 1891.

[9] Loc. cit.

young man. Crisis occurred on the fourth day after an acute onset with rigor. There was a short relapse with recurrence of pharyngeal inflammation after an afebrile interval of six days. A fatal termination in pneumococcal pharyngitis is quite exceptional if one may judge by the recorded cases, and the occurrence of gangrene, which determined the broncho-pneumonia in my patient, is also rare. Monro's patient furnishes the only other instance of this that I have come across.

The local signs of pneumococcal pharyngitis are in no sense distinctive. The membranous form may closely simulate diphtheria and a bacteriological examination alone reveal the true nature of the case. Somewhat similar appearances are also met with in some cases of streptococcal inflammation of the throat[10] but here the exudate is usually thinner and looser in texture and less adherent than in pneumococcal or diphtheritic inflammations. More reliance may be placed, in my opinion, on the early symptoms and mode of onset. In pneumococcal sore-throat the onset is usually quite sudden, often with rigor or chills, the initial symptoms are severe, and the temperature rises rapidly to 103° or higher—a grouping of symptoms strikingly like those of pneumonia and very rarely met with in anything like the same degree in diphtheria or even in streptococcal pharyngitis. The disease tends to run a short course—from two to five days—but to this there are exceptions. The erythematous form of the affection is most likely to be mistaken for scarlatinal angina and here the diagnosis—apart from bacteriological findings—must rest mainly on the absence of other signs of scarlet fever. It is worthy of note that a considerable number of the recorded cases of pneumococcal sore-throat have been in adults.

Chandos-street, W.

ON THE

RESEMBLANCES EXISTING BETWEEN THE "PLIMMER'S BODIES" OF MALIGNANT GROWTHS AND CERTAIN NORMAL CONSTITUENTS OF REPRODUCTIVE CELLS OF ANIMALS.[1]

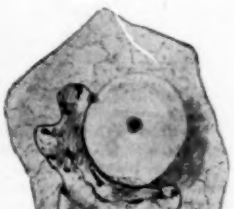
BY J. BRETLAND FARMER, F.R.S.;
J. E. S. MOORE;
AND
C. E. WALKER.

IT is proposed in the present communication to present the results of investigations bearing on the nature of those remarkable structures known as "Plimmer's bodies."[2] As is well known, these are found in many cancerous growths and are most commonly encountered in the younger or growing regions of the tumour. They appear in the form of vesicles and they consist essentially of a fairly well-defined wall containing a clear space in which is suspended a small darkly staining granule (Figs. 1 and 2). They are most commonly to be met with in tumours of a glandular or glandular-epithelial origin.[3] They lie in the cytoplasm of the cancer cell and usually in close proximity to the nucleus. In size they vary from excessive minuteness to that of the nucleus itself.

FIG. 1.

Example of "Plimmer's bodies" from scirrhus of the breast: three small "bodies" in an archoplasm.

FIG. 2.



Later stage in the development of the "bodies."

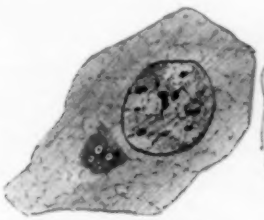
The special interest attaching to them depends on the fact that they have commonly been regarded as peculiar to cancerous cells, although Honda[4] believes that he has occasionally also encountered them in inflammatory tissues. They have been variously interpreted. Some investigators have regarded them as parasitic organisms, more or less intimately connected with the etiology of the disease, whilst others have seen in them a differentiation of the cytoplasm of the cancerous cell itself. It has been suggested also that they might be derived from the centrosomes within the archoplasm,[5] but the observations of Benda[6] that centrosomes coexisted independently of them in the cell has rightly been held to disprove this hypothesis.

Our own investigations indicate, however, that there are good grounds for reconsidering the whole position and a comparison of the processes that normally obtain during the final stages of development of the reproductive elements in man and the other mammalia appears to us strongly to suggest that a parallel between the Plimmer bodies of cancer and certain vesicular structures occurring regularly in the gametogenic, but not in the ordinary somatic, cells may be found to hold good.

It was shown by one of us[7] in 1895 that during the prophase of the heterotype (first maiotic) mitosis of the spermatogenetic cells the archoplasm undergoes a highly characteristic and peculiar metamorphosis. In normal somatic, or premaiotic, cells the archoplasm is seen to lie beside the nucleus as a dusky mass of protoplasm in which are contained the centrosomes. That is, the attraction sphere consists of the archoplasm *plus* the centrosomes. But during the prophase of the heterotype mitosis these constituents become separated. The centrosomes are found to lie *outside of*, and detached from, the archoplasm. At the same time the archoplasm itself undergoes a change. It becomes vesiculated and finally, at the close of this cell generation, it is lost in the general cytoplasm of the daughter cells.

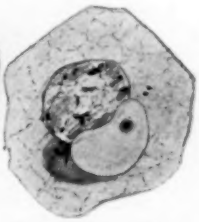
In the prophase of the second maiotic division (homotype) the same phenomena recur. When the homotype mitosis is over the constituents of the sphere, or at least some of them, enter into direct relation with parts of the spermatozoon which arises by further differentiation of the cell. As regards the archoplasm, with which we are more directly concerned, it is again seen to contain a number of minute vesicles which continue as before to grow in size, whilst each contains a single refractive and stainable granule (Fig. 3). Subsequently several of these vesicles fuse together so that at a later stage in the metamorphosis of the cell into a spermatozoon there only remains a single large clear body, bounded by a distinct membrane, containing in the centre one or more darkly staining granules (Fig. 4).

FIG. 3.



Spermatid of mouse (early stage).

FIG. 4.



Spermatid of man (later stage).

---

[10] Weinberg: loc. cit.

[1] A paper read before the Royal Society on May 11th, 1905.

[2] Plimmer: Practitioner, vol. lxii.

[3] Greenough: Third Report of the Caroline Brewer Croft Cancer Commission, Harvard Medical School, 1905.

[4] Honda: Virchow's Archiv, vol. clxxiv.

[5] Borrel: Annales de l'Institut Pasteur, vol. xv. This author was on the right track in attributing importance to the archoplasm, but the erroneous interpretation placed on the centrosomes precluded his arriving at a satisfactory conclusion as to the nature of the bodies under discussion.

[6] Benda: Verhandlungen der Deutschen Gesellschaft für Chirurgie, 1902.

[7] Moore: Internationale Monatschrift für Anatomie und Physiologie, vol. xi.

This body, originally described by one of us in 1895 as the archoplasmic vesicle, is a very conspicuous and apparently constant feature peculiar to the spermatogenetic cells of, at any rate, the vertebrata and it has since been encountered beyond that group by other observers. When fully developed it often assumes a size approximating to that of the nucleus. Indeed, the latter is often deformed and made to assume a crescentic or cuplike shape owing to the enlargement of the adjacent archoplasmic vesicle. The vesicle and its contents ultimately form the so-called "cephalic cap" of the spermatozoon.

The remarkable similarity between the structure just described and those known as Plimmer's bodies will have become obvious. It is not, perhaps, accidental that just as in the case of nuclear divisions, so also in the cellular inclusions, a parallelism between the cells of reproductive tissues and of cancer cells should be found to exist. But we do not on this account regard the cells of cancer as *identical* with those of the sexual cells, as we were careful to point out in our first communication in 1903. But the resemblances between what we have termed gametoid and the true gametogenic cells now seem to be even more significant than they appeared to be at that time. Both classes of cells are autonomous to a very high degree and both possess the faculty of continuous or intermittent multiplication independently of the tissue requirements of the organism. And finally both exhibit cellular and nuclear metamorphoses which not only, *mutatis mutandis*, resemble one another, but differ materially from those pertaining to the normal somatic cells.

It is possible that the malignant elements are the outcome of a phylogenetic reversion, as was suggested by Sir William Collins, but the matter is obscured by the disturbing influences that have been operative during the actual ontogeny of the cells and tissues from which these elements have sprung. If this be so the connexion apparent between gametoid and the true reproductive cells will acquire a still deeper significance. But we propose to reserve the discussion of this question for another occasion.

In thanking those who have helped us with material we would mention especially Mr. Plimmer himself who has most kindly placed preparations at our disposal. We would further record our indebtedness to the Imperial Cancer Research Fund for a grant in aid of our investigation.

ACUTE AORTITIS.

BY WALTER BROADBENT, M.A., M.D. CANTAB., M.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO THE SUSSEX COUNTY HOSPITAL.

ACUTE aortitis is so rarely seen that the following case seems worthy of record.

A man, aged 45 years, came to my out-patient department at the Sussex County Hospital on March 1st complaining of pain across the left chest after partaking of food. He said that for three months he had had some discomfort in the upper abdomen an hour or more after meals and for about ten days there had been definite pain in the lower part of the left chest, mainly late in the afternoon, which he attributed to indigestion. He did not look ill. His tongue was slightly furred and his bowels were regular. His pulse was 80, the artery was a little above the normal size, the walls were not much thickened, and the wave was very easily compressible, not collapsing. The apex beat was in the vertical nipple line two inches below the nipple; the impulse was poor. On auscultation a moderate first sound, a second sound, and a short diastolic murmur were heard. At the pulmonic and aortic cartilages there were soft second sounds and a short diastolic murmur. In the neck the second sound was distinct. There had been no rheumatic fever. No history of syphilis was obtained. There was no tenderness in the epigastrium and the stomach was not dilated at all. The pain never spread to the arm and the man thought that food had more to do with it than exertion, but as the physical condition of the stomach seemed good and that of the heart doubtful a mixture containing spirit of nitrous ether and strychnine was ordered.

A week later the patient came again saying that the pain had become steadily worse and for four days it had been shooting all over his chest and down his left arm. It was now exceedingly severe and the attacks were almost continuous. He looked pale, anxious, and worn, though a week before his appearance had been healthy. His pulse was 96 and was very easily compressible. The apex beat was barely perceptible and the first sound was weaker than before. He was sent to the hospital for admission and an hour later, just after getting into bed, he died suddenly.

At the post-mortem examination the most striking feature was the bright red colour of the first three inches of the aorta inside and outside. The aortic valves were found to be practically competent by the water test. They were thickened and showed signs of atheroma. The mouths of the coronary arteries were almost completely occluded and only a bristle could be passed through either. A calcified plaque formed part of the obstruction to the right but the other was blocked by swollen intima. Areas of old atheroma were scattered on the aortic walls, and, in between, the intima was bright pink and swollen in patches, the appearance corresponding closely to the water-colour drawing in Sir William Broadbent's work on "Heart Disease" (third edition). Outside the adventitia was red and injected. This extended up to about the origin of the innominate artery. There was no spread of inflammation into the left ventricle. The heart muscle seemed firm.

Dr. F. G. Bushnell kindly cut sections of the aorta and heart muscle. In those of the aorta there was a perivascular infiltration with leucocytes round the vasa vasorum of the aortic wall, more marked in the outer coat. The sections of the heart muscle stained in Sudan III. and osmic showed a singular absence of change. The striation of the muscle and the nuclei appeared normal and no fatty or fibroid degeneration was found; all that could be seen was a slight pigmentary deposit near the nuclei. No bacteriological investigation was made.

As in previously recorded cases this was an acute inflammation attacking an aorta already damaged by atheroma. The primary cause of death in this case must have been the blocking of the orifices of the coronary arteries by the swelling of the intima, since one cannot imagine the heart continuing to beat for long when only a bristle could be inserted into either coronary artery, and the condition of the heart, free from fatty degeneration or fibrosis and with the muscle in apparently good condition, shows that the obstruction to the blood-supply was not of long duration. The clinical history of the case also bears this out, there being no true attack of angina pectoris until four days before death and then there was a rapid increase in the number of the attacks.

The duration of the disease from the first symptom which could be called cardiac pain was only 17 days, the usual length being from two to six months, but Dr. F. J. Poynton relates a case of sudden death[1] due to acute aortitis with no history of previous illness. He gives details of two cases but in neither was there any inflammatory obstruction of the coronary arteries; in one there was fatty and in the other fibroid degeneration of the heart wall, and in both he describes the nuclei of the muscle fibres as staining indistinctly and the striation as feeble, and he attributes the fatal termination to these changes. In the case described above there were none of these degenerations of the cardiac muscle.

Brighton.

[1] THE LANCET, May 20th, 1899, p. 1352.

MEDICAL GOLFERS' ASSOCIATION *v.* BAR GOLFING SOCIETY.—The annual match between teams representing the Medical Golfers' Association and the Bar Golfing Society took place at Woking on Saturday, May 20th. A year ago the match was played at Burnham Beeches and after an exciting finish the barristers gained a victory by one point. For Saturday's match strong teams were chosen and fair golf was witnessed, the Bar being easily victorious. The following took part in the match. Medical Golfers' Association: Dr. A. W. Daniel, Dr. W. J. Howarth, Mr. H. Dane, Dr. Percy Kidd, Dr. C. Webb, Dr. F. F. Caiger, Dr. H. P. Hawkins, and Dr. H. Low. Bar Golfing Society: Mr. H. W. Beveridge, Mr. J. Crabb Watt, Mr. L. Mossop, Mr. C. F. Parton, Mr. H. T. Wright, Mr. F. S. Jackson, Mr. R. H. Balloch, and Mr. M. Shearman, K.C. In the singles the Bar scored seven points to one scored by the Medical Profession, while in the foursomes the Bar won by three points.

A REGULATING CHLOROFORM INHALER.

BY A. G. LEVY, M.D. LOND.,
ANÆSTHETIST TO GUY'S HOSPITAL; ASSISTANT ANÆSTHETIST, NORTH-WEST LONDON HOSPITAL.

(*From the Laboratory of Pathological Chemistry, University College, London.*)

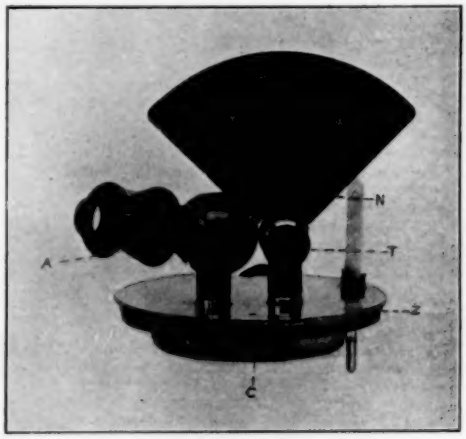
THIS apparatus is a simplified and improved form of that which I described recently to the Royal Medical and Chirurgical Society.[1] It is unnecessary to enter very fully here into the details of the methods employed and the principles involved in the construction and use of the appliance, as these matters were fully discussed in the paper referred to.

The complete apparatus is shown in Fig. 1, and in Fig. 2 some parts of it are seen from behind. In order to indicate more clearly its intimate construction I have provided a diagram (Fig. 3) of its main portion as if seen from above in a plane projection.

The apparatus may be described as consisting of a face-piece and a body which communicate through the medium of a length of wide-bore aluminium pressure tubing. This tubing is connected to the face-piece (F, Fig. 1) by a double junction in the form of two hollow metal globes, which rotate upon one another and upon the mount of the face-piece. Upon the summit of the one globe (that further from the face-piece) is fixed a light hinged aluminium valve, opening outwards and providing for the escape of the expired air. The double joint enables one to dispose the tubing conveniently.

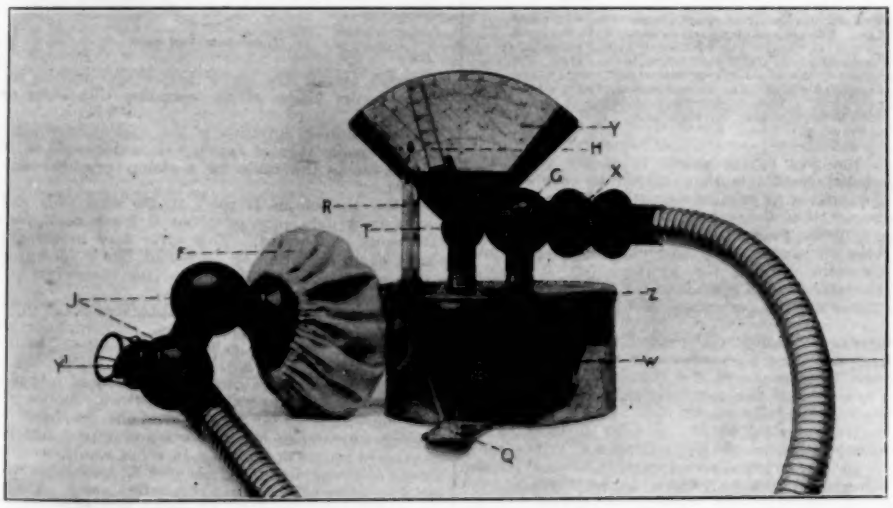
The body consists of the following parts. A shallow circular vessel, 11 centimetres in diameter and 2·7 centimetres in height, contains the chloroform (C, Figs. 2 and 3). This vessel forms part of the cover of a bigger vessel (W, Fig. 1) which is filled with hot water and constitutes a water bath, the thin copper bottom of the chloroform vessel alone separating the chloroform from the water. A spout (*e*, Fig. 3) is fixed in the cover and from it the chloroform chamber is filled through an opening in the bottom of the latter. Two ounces of chloroform are required to fill the chamber up to a level indicator (a small loop of wire) which is fixed in the spout. There are two tubular apertures (15 millimetres in diameter) in the roof of the chloroform chamber (*i* and *o*, Fig. 3) which provide for the ingress and egress of the air current, which is directed from one to the other in a circular direction around the chamber and over the surface of the chloroform by means of the vertical partition and circular walls, the position of which is indicated by the dotted lines (*p*, Fig. 3). The inlet (*i*) may be closed and opened by the tap (*t*), this being itself manipulated by the index lever (*h*), which travels over the scale plate (*y*). The outlet tube communicates directly with the metal globe (*g*), and through it with the aluminium tubing, an aluminium valve, inclosed in a glass observation chamber (X, Fig. 1), being interposed at the junction. The globe (*g*) has also a circular air inlet (A, Fig. 2) 18 millimetres in diameter, which is permanently open.

FIG. 2.



Back view.—The cover removed from the water bath, showing the exterior of the chloroform chamber (C), the aperture for the pure air (A), and the aperture (B) leading to the tap.

FIG. 1.



The complete apparatus seen from the front. F, Face-piece. G, Globe in which air and chloroform currents mix. H, Index-hand. J, Globes forming a double junction with the tubing. Q, Foot, which is clamped to the edge of a table. R, Thermometer. T, Tap for regulating chloroform supply. W, Water bath. X, Glass valve chamber (containing inspiratory valve). Y, Scale plate. Y[1], Expiratory valve. Z, Cover of water bath.

[1] Transactions of the Royal Medical and Chirurgical Society, 1904–05; THE LANCET, Nov. 26th, 1904, p. 1496.

When inspiration is performed through the face-piece air is drawn in from two sources—viz., pure air through the hole (*a*) and vapour-laden air through the circuitous route of the chloroform chamber *viâ* the tap, as shown by the dotted arrows in Fig. 3, and these two currents intermingle in the globe (*g*) and form a complete mixture in their course through the aluminium tubing. During expiration reflux is prevented by the inspiration valve (v^2) and the expired air escapes through the valve on the face-piece. The proportions and dispositions are such that when the tap is fully open between twice and three times as much pure air passes

FIG. 3

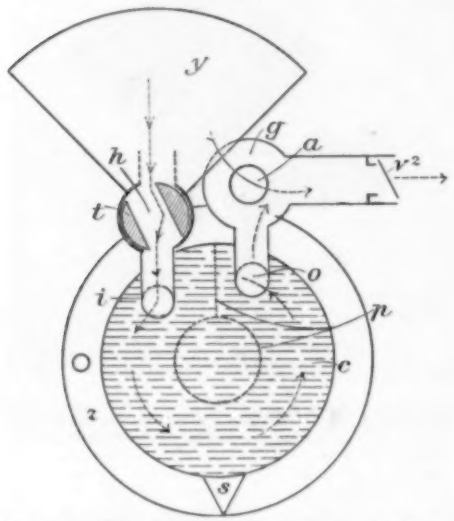


Diagram of the apparatus as if seen from above in plane projection. The air aperture (*a*) is shown as if in the front of the mixing globe (*g*). The horizontal shading represents the chloroform surface, as if seen through the cover. The dotted lines represent structures as if seen through transparent superstructures. The arrows indicate the course of the air currents. *i*, Inlet to chloroform chamber. *o*, Outlet from chloroform chamber. *p*, Partitions. *s*, Spout. v^2, Inspiration valve.

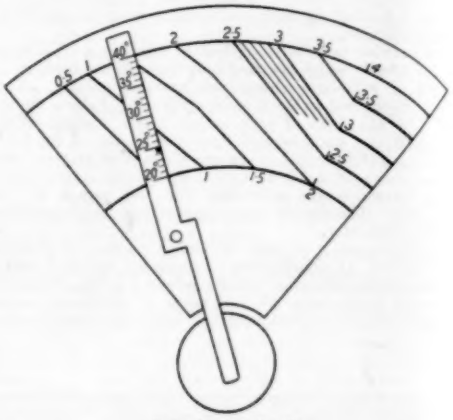
in through the hole (*a*) as passes in at the tap. The chloroform-laden current is thus diluted to between one-third and a quarter of its original strength and at any definite temperature of the water bath a mixture of definite percentage is drawn to the face-piece. By partially closing the tap less air passes over the chloroform and proportionately more through the aperture (*a*), so that a mixture of greater dilution is inspired. For each position of the tap handle a definite percentage dilution is marked upon the scale.

The water surrounding the chloroform has a higher specific heat than has the latter and it is thus able to maintain the temperature of the chloroform which would otherwise tend to fall to a low level during abstraction of heat in the course of its evaporation. The water bath is filled with hot water (at 40° C.) in order to increase the vapour-yielding capacity of the chloroform and this is necessary because a strong vapour current is required in view of the subsequent dilution which occurs. Whilst the temperature of the water, and hence also of the chloroform, remains constant (other physical conditions being the same) the percentage of vapour inhaled depends solely upon the position of the index hand, and the percentages at a temperature of 40° C. are marked off at 0·5 per cent. intervals along an arc at the top of the scale plate (see Fig. 4).

As the water gradually cools down to the temperature of the room provision is made for reading off percentages at lower temperatures. A thermometer (R, Fig. 1) is therefore provided to indicate the temperature of the water bath. It is graduated between 20° and 40° C., and this graduation is reproduced upon the face of the index hand. By prolonging the percentage divisions of the top arc diagonally downwards and across the scale plate, as shown in the figure, the percentages may be read of any temperature to within 0·5 per cent. Thus in Fig. 4 the index hand indicates at 40° a little over 1·5 per cent. and at 34° between 1 and 1·5 per cent. The scale may preferably be divided by lines indicating differences of 0·1 per cent., as is shown in one section of the figure. The position and course of the major divisions (at intervals of 0·5 per cent.) were determined by a series of densimetric estimations of vapour aspirated by a suction bellows working under constant conditions.

The maximum percentage of vapour for which the instrument is graduated is 4 per cent. at a temperature of 40° C., but if an available 4 per cent. vapour be deemed inadvisable—as, for instance, when anæsthetising children or as a precautionary measure in inexperienced hands—the water bath may be filled at a lower temperature, say at 30° C., yielding a maximum of 3 per cent. only. The maximum obtainable becomes progressively more limited as the water

FIG. 4.



Index hand and scale.

bath cools, and as the higher percentages are only required in the earlier stages of an operation this offers no disadvantage.

In order to avoid agitation of the chloroform which would raise the percentage of vapour,[2] it is necessary to fix the water bath to the table by a clamp provided with the instrument.

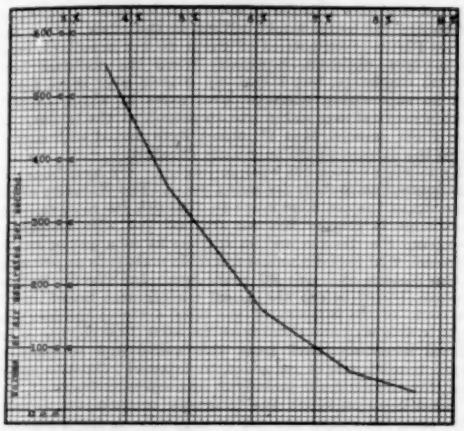
As the chloroform is used up its level falls and this results in a deficiency of about 0·1 per cent. for every half ounce evaporated. This error may in the ordinary course of an operation be neglected, but if for any special reason great accuracy be required the chloroform must be replenished every half hour.

An essential principle of the apparatus is the apparently anomalous one of heating up the chloroform to yield a strong vapour, which is subsequently weakened by dilution with pure air, and it is now necessary to explain the reason of this procedure. The condition imposed of propelling an air current over an evaporating surface by the suction power of human inspiration is far from an ideal one, for the air current takes up a greater or less proportion of vapour according as its passage is slow or rapid, or, in other words, according as a weak or strong draught is induced in accordance with the variable action of the human respiratory pump. The following experiment serves to illustrate this fact. Conditions similar to those of human respiration were reproduced by employing a suction bellows of variable capacity worked by a wheel and crank. The air aperture (*a*) being blocked suction was made by the bellows over the chloroform surface, thus obtaining an undiluted chloroform current. The water bath was filled at 20° C. and the capacity of the bellows was set at 550 cubic centimetres. By turning the bellows wheel a strong intermittent draught was produced and the percentage of vapour taken up was 3·6. When, however, the capacity of the bellows was reduced to 160 cubic

[2] Sharply jarring the apparatus causes a rise in percentage of one quarter of that indicated at the moment on the scale.

centimetres the percentage of vapour rose to 6·2. (Chart, Fig. 5.) It is seen, therefore, that direct suction over a chloroform surface is contra-indicated. However, by drawing a large proportion of the draught through the air aperture (*a*) the current through the chloroform chamber is only a fraction of the whole and is therefore in all cases a relatively slow current. Now the percentage of vapour taken up by sluggish currents does not increase, as these currents become slower, in the same proportion as the percentage increases in the case of quicker-moving currents. (See chart and description, Fig. 5.) The indication, therefore, is to allow only slow

FIG. 5.—CHART SHOWING THE PERCENTAGES OF VAPOUR IN THE CHLOROFORM CURRENTS.



The above chart shows the percentages of vapour taken up during intermittent aspiration of air over the chloroform surface of the inhaler, when the temperature of the water bath is 20° C. The suction was performed by a suction bellows actuated by a flywheel and crank. The wheel was turned 30 times per minute and the suction phase thus occupied one second. The capacity to which the pump was regulated is the volume of air sucked in a second and is a measure of the strength of draught of air through the apparatus. It will be observed that whilst a current of 550 cubic centimetres per second takes up 3·6 per cent. of vapour, a current of half this rate—viz., 275 cubic centimetres per second—takes up 5·3 per cent., which is an increase in value of nearly one half. The percentages read off from two slower currents bearing the same relation to one another, such as 120 cubic centimetres and 60 cubic centimetres, are 6·7 and 7·6 respectively, but in the case of these slower currents the increase in value of the percentage of vapour is seen to be much smaller, rather less than one-seventh.

currents, which take up a large percentage of vapour, to pass over the chloroform and to dilute them with pure air down to respirable mixtures. If we presume that one-third the total air inspired passes through the chloroform chamber and that two-thirds enter the air inlet it may be deduced from the percentage chart (Fig. 5) that the following mixtures would be obtained with both the apertures open, when the temperature is 20° C.

TABLE I.

Draught during aspiration.	Percentage of chloroform in the mixture.
*550 cubic centimetres per second	2·0 per cent.
360 ,, ,, ...	2·2 ,,
160 ,, ,, ...	2·6 ,,

* Aspiration of 550 cubic centimetres per second results in a current of $\frac{550}{3}$ = 183 cubic centimetres per second over the chloroform.

Reference to the chart shows that a draught of 183 cubic centimetres per second takes up 6 per cent. of vapour, therefore the resulting mixture is at 2 per cent.

It is seen that the percentages at different rates of draught are approximated but not sufficiently so for clinical purposes; at percentages over 2 the differences would be magnified. Therefore advantage is taken of another natural law to bring the readings into closer approximation. This is the law of the viscous flow of fluids. It will be observed that whilst the pure air enters through a simple thin-walled aperture, the chloroform current flows through a series of tubes and passages, which introduce a measure of resistance to its flow. Now this resistance is of such a nature that it acts relatively more powerfully on slower-moving currents, and thus in the case of weak suction the disproportion between the air current and the chloroform current becomes greater than in the case of strong suction.[3] In this way is induced a greater dilution at low suction pressures than at the higher suction pressures. For example, suppose that at the lowest rate of suction given in Table I. (viz., 160 cubic centimetres per second) the dilution becomes, by reason of the viscosity effect, three to one instead of two to one (as it is in the case of stronger suction of 550 cubic centimetres per second) then the 160 cubic centimetres will contain 120 cubic centimetres of pure air and 40 cubic centimetres at 8·2 per cent. (see chart) and the resulting mixture will be at 2·05 per cent. instead of 2·6 per cent.[4]

The following table of tests performed upon the apparatus serve to demonstrate that the apertures and parts of the apparatus have been so adjusted experimentally that the required effect is in fact obtained.

TABLE II.

Draught per second during aspiration.	Index 2 per cent. Temperature 40°.	Index 4 per cent. Temperature 40°.	Index 2 per cent. Temperature 20°.	Index 3 per cent. Temperature 30°.
550 cubic centimetres	1·9	3·9	2·05	3·0
450 ,, ,,	2·0	4·0	2·05	—
360 ,, ,,	2·1	3·8	2·15	3·0
160 ,, ,,	2·1	3·55	1·9	2·9
60 ,, ,,	—	—	—	1·54

The suction was performed by a suction bellows actuated by a flywheel and crank. The wheel was turned 30 times per minute and the suction phase thus occupied one second. The capacity to which the pump was regulated is the volume of air sucked in a second and is a measure of the strength of draught of air through the apparatus.

When considering the above table in its relation to human respiration it should be noted that a total intake of 550 cubic centimetres of air in a single second is a respiratory effort of more than ordinary force under chloroform anæsthesia and that 160 cubic centimetres in a second represents a feeble type of breathing. The suction of 60 cubic centimetres per second is below the range of human respiration but is introduced to show the exaggerated viscosity effect during very weak suction. This, of course, is a safeguard in the case of failing respiration.

Variations in the length of pause between the suctions is negligible as a modifying factor and so the above tests definitely show that there occur no substantial deviations from the indicated percentages as a result of variation in respiration and that it is impossible for breathing of a low dynamic type to result in a raised percentage, but that, in fact, under these conditions the percentage tends to fall in value.

At the expense only of a slight increase in bulk certain advantages over my earlier pattern of inhaler have been attained. These are chiefly as follows:—

1. A considerable simplification, the only manipulation involved being the adjustment of the index hand.
2. The more perfect blending of the chloroform vapour with the air. The mixture is in consequence more readily respired, there are less tendency to cough and to hold the breath and a diminished liability to excitement.
3. A free entrance and unobstructed passage for the air, causing an absence of any sense of resistance except in the case of very exaggerated breathing.
4. The maintenance of the percentage indicated on the scale for any given position of the index hand, through a greater range of force of suction.
5. The construction of the whole of the apparatus of metal parts to facilitate cleansing and to insure greater durability.

In conclusion, I have to acknowledge with many thanks the facilities provided me by Dr. Vaughan Harley for working at this subject in his laboratory.

Devonshire-street, W.

[3] This is an application of the law that flow through an aperture is approximately proportional to the square root of the driving pressure, whereas viscous flow, as flow through tubes, is directly proportional to the pressure.

[4] As a matter of fact the obstruction offered to the flow of the chloroform current is insufficient to induce a retardation to the full theoretical extent, otherwise the vapour percentage of a mixture at 160 cubic centimetres per second would be considerably less than 2.

PURULENT OPHTHALMIA AND THE TREATMENT BY ARGYROL.[1]

BY GEORGE E. WHERRY, M.C. CANTAB., F.R.C.S. ENG.,
SURGEON TO ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

THE remarks now offered to you are founded on 50 cases of purulent ophthalmia which were brought to Addenbrooke's Hospital during a period of five years before 1900. Of these 50 cases 37 were cured, either entirely or without any serious damage. In five cases both eyes were hopelessly lost, and in three of them the sloughing of the cornea was so extensive as to allow of the loss of both crystalline lenses. In the remaining eight there was serious impairment of vision of one or both eyes resulting in corneal opacities, partial staphyloma, pyramidal cataracts, and other lesions. Two of the patients affected were twins, and there was one instance of the disease happening twice in the same family. Six died during or shortly after treatment for syphilis, meningitis, and other maladies. One case of arthritis occurred which possibly was of the nature of so-called gonorrhœal rheumatism, but the gonococcus was not looked for in the fluid effusions of the joint. In one case a purulent discharge from the nose made one wonder that this event did not happen more frequently, but the nasal passages are very rarely infected. Several cases of syphilitic "snuffles" were noted. With one exception both eyes were affected, but in several one eye was infected later than the other, and in these probably the contagious matter was introduced, not at birth but later by fingers or towels. It usually happens that the infant is brought to the hospital by a neighbour, the mother being still in bed or not yet strong enough for the journey. In 31 cases no medical man was in attendance during the confinement; several children were illegitimate. With regard to the nurses employed, one, Nurse E., had been in attendance on the mothers of eight infants, Nurse C. on five, Nurse M. on four, but sometimes a neighbour gave help at the labour and neither nurse nor medical man was present.

The amount of damage done in the cases with partial recovery is not easy to estimate, and the ultimate result is very difficult to forecast because an apparently slight lesion may cause great impairment of vision and an apparently large mischief may clear away wonderfully. An important consideration to bear in mind is that the cornea has its own rate of growth and is peculiar in that regard, attaining its full surface area at five years old. So that we look through the same sized windows at five as we do at 40 years. The cheerful point is that clear cornea, except in perforated cases, *grows* while the surface area of the opacity or scar diminishes.

It is well to understand that very serious consequences may follow a purulent conjunctivitis which is not gonorrhœal. Not long ago I saw an example in an infant with one eye only affected in an otherwise healthy female child. There was a resulting opacity, now nearly clear, but both nystagmus and slight squint have appeared, so that though the cornea clears the case has still a serious aspect. About the mode of contagion: of course, usually the poison was obtained from the mother's passages during the birth of the child. Several of the cases had been bathed with milk, most often the mother's milk. In this connexion I may mention the disgusting practice, among alien populations about Smithfield, of bathing the child's eyes with the mother's urine. The mode of onset also suggested that some cases had been inoculated later than birth.

It is curious to note that in gonorrhœal ophthalmia of adults the right eye is more often affected than the left, no doubt from the more free use of the right hand in self-inoculation; also that a large number of cases give a history of a pre-existing blepharitis as pointed out by Mr. E. Nettleship, which would make the tendency to a fidgety rubbing of the eyelids and thus render inoculation more probable. Some are of opinion that the blepharitis renders the conjunctiva more vulnerable to the gonococcus poison. Certainly the conjunctiva defends itself in an admirable way against all microbes except a very few and suppuration cannot be established easily in the conjunctival sac so as to be kept up without these special cocci. This is well seen in the old cases of pannus which were sometimes treated with jequirity seeds to excite suppuration, for it was found very difficult without gonorrhœal pus to excite purulent inflammation sufficient to cure the pannus, and the gonorrhœal pus was used occasionally with good success and permanent cure as to the pannus and trachoma.

But the bacteriology of this subject is apart from the purpose of this paper. A word as to the prevention of the disease and of its terrible results. 1. In order to get the cases earlier papers of warning have been printed for me and during the past 15 years have been given to suitable distributors, relieving officers, and others. 2. It was useless to appeal to those in charge of the charity which employs the nurses in the poor districts. So soon as it was discovered that this disorder often depended upon "something improper" the ladies would not stir in the affair. To a few nurses I have given bottles of drops to use in suitable cases of newborn children, especially when the mothers have vaginal discharge, but I have no control over these nurses and no supervision whatever over cases in which there is neither medical man nor nurse to attend at the labour. Of this I am assured, that if nurses were armed with argyrol drops the disease would be greatly checked.

Knowledge comes but wisdom lingers. We have known of this contagious malady for many years. The discovery of the gonococcus has not done much to diminish its ravages. Our knowledge is greater but we are not yet wise enough to stamp out the disease and it appears to me a matter for sad reflection that this diabolical microbic malady is as prevalent in this district as it was 20 years ago. In 1885 Sir William Bowman stated before the Local Government Board that 30 per cent. of the inmates of the blind asylums had lost their sight in this way and there were at least 7000 persons in the United Kingdom blind from this cause and to these an equal number might be added to represent those suffering from the effects of the malady in less severe forms.

These cases on which the foregoing remarks are founded were observed before the use of argyrol. A few words now as to the use of this remedy which I have tried in a large number of cases. It is a silver salt; as such it is used in cases when nitrate of silver would otherwise be suitably applied. The solution as standardised at the factory in Philadelphia is diluted to make a 50 per cent. or 25 per cent. for drops of usual strengths. It does not cause pain, it is not followed by irritation of the lids, and the staining of chocolate-brown washes off the lids or cheek without permanent mark and weak corrosive sublimate takes the stain off quickly. It has its greatest value in checking suppuration from the conjunctiva and in some most unpromising cases it has proved to be the best remedy.

At the extremes of life in infancy and old age, with the eye during growth or the eye during degeneration, the treatment of disorders needs watchfulness and special care. It is most useful in purulent ophthalmia and while not wishing to discredit old and tried remedies I must speak well of argyrol. Frequent ablutions of the conjunctival sacs and the careful use of the irrigation-can and swabs by a nurse of experience are as much needed with argyrol as with the old drops of protargol or silver nitrate.

In the hospital during the past 12 months almost the only case of conjunctival suppuration which has not been successfully treated with argyrol is the following. The patient was a female child, aged six years, with profuse suppuration filling the conjunctival sacs, causing dusky red swelling of the lids and threatening destruction of the cornea of both eyes. Argyrol drops, nitrate of silver, and other remedies all failed. Thick polypus-like granulations lined the lids. The child had a sore-throat and both in the exudations from the throat and in the pus from the conjunctiva were found the Klebs-Löffler bacilli. The pus formation had continued during ten days, no remedy making any impression. As soon as 12,000 units of antidiphtheritic serum were injected this treatment cleared the eyes of discharges and no further injection of serum was needed. Except that an abscess formed in the neck there was a wonderfully complete recovery in a few days both of the eyes and health generally. Slight nebulous cornea alone remained. It was interesting to note in this case that there was no response to the remedies used until the antitoxin had been injected. Another point of interest is that there was during ten days thick pus discharged from the conjunctival linings and not the usual membranous exudation of diphtheria.

Next, to relate briefly the case of a woman, over 70 years of age, who had lupus of the face for 30 years. The end of

[1] A paper read before the Cambridge Medical Society on April 7th, 1905.

the nose and portions of the face were destroyed and active tuberculous disease affecting both eyes had caused a hypopyon ulcer in one eye. Argyrol drops used every eight hours proved successful in causing complete absorption of the pus in the anterior chamber, relief from pain, and as much improvement in the general condition of the eye as could be expected. It is well to note in this place that the argyrol drops are carried by the tears into the nose and in this patient the nostrils affected by the lupus would have shown any results of irritation if such had chanced, but though the raw surfaces of the ulcerated nostrils were stained by the fluid it was rather useful than otherwise as an application to the lupus sores.

Like an embarrassed sportsman who puts up too many hares I fear to give you too many details and in giving you these remarks, leaving out much to make my paper suggestive rather than exhaustive, there are plenty of gaps left for others to observe and to report upon. You will see that argyrol puts in a great claim for your favourable regard both in the treatment and prevention of purulent ophthalmia.

Cambridge.

IS MAN POLTOPHAGIC OR PSOMOPHAGIC?

BY HUBERT HIGGINS, M.A. CANTAB., M.R.C.S. ENG., L.R.C.P. LOND.,

LATE DEMONSTRATOR OF ANATOMY AT THE UNIVERSITY OF CAMBRIDGE AND ASSISTANT SURGEON TO ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

PART II.[1]—THE PRACTICE OF POLTOPHAGY.

IN Part I. I stated a case for poltophagy *versus* psomophagy in man, relying for my main argument on the fact that structure is crystallised function. When using such a point as this it is almost irresistible not to carry it further into the psychical equipment for the choice of foods and the indications necessary to determine its quality and quantity. To wild animals it would seem to be as necessary to be able to adjust their food to their needs as that of obtaining water or oxygen, for the penalty of inefficiency is generally death. What conditions have arisen, it may be asked, that the existence of such a faculty should even be questioned in man? What compensation has civilisation provided in its place? Mr. Horace Fletcher put this point to me with admirable clearness and brevity in 1901 by telling me "that if one insalivated and masticated one's food and ate what one liked the rest took care of itself." Three years' experience has lead me to have a growing conviction of the substantial truth of Mr Fletcher's contention. This apparently simple but really difficult proposition is the one that this paper mainly deals with, because it is an absolutely essential part of any intelligent appreciation of the phenomena observed during the practice of poltophagy. To express this psychical equipment in the case of animals one makes use of that much-abused term "instinct"; in the case of man one speaks of appetite and taste. Appetite has become a much less vague term in consequence of the labours of Pawlow. It is to be hoped that taste will yield up its secrets to the determined assaults of Dr. Kiesow of Turin.

I have first dealt with appetite, then taste with points dealing with foods, afterwards I have briefly considered the acquirement of the habit of poltophagy, also changes in the fæces and the large intestine.

1. *Appetite.*—The psychical element in digestion has been recently brought into scientific prominence by the researches of Pawlow who says: "It is only by the establishment of this passionate desire for eating that unerring and untiring nature has linked the seeking and finding of food with the commencement of the work of digestion. That this factor, which we have now so carefully analysed, stands in closest relation with a phenomenon of daily life—namely, appetite—may easily be predicted. That agency which is so important to life and so full of mystery to science becomes at length incorporated into flesh and blood, transformed from a subjective sensation into a concrete factor of the physiological laboratory. We are justified in saying that appetite is the first and mightiest exciter of the secretory nerves of the stomach."

It would be impossible to have any conception of the nature of poltophagy without looking on appetite as the most essential part of the phenomena presented by its practice. It is important to tell those commencing the practice that they should on no account eat without appetite and that they should cease as soon as appetite ceases. It will be useful to consider appetite from the following points of view:—

(*a*) *Variations in appetite.*—Appetite varies from a well-defined and decided preference for certain foods to an ill-defined general hunger, or the condition known as a poor appetite. Speaking generally, an individual is at his best with a decided appetite for one or more of the groups of foods described below.

(*b*) *The cessation of appetite.*—The end-point of a meal is very decided and well marked in poltophagy. It is quite exceptional to find that undecided end-point so well shown at the end of dinner, during the dessert stage with its sweets, fruit, biscuits, &c.

(*c*) *The frequency of meals.*—At variable periods of time after commencing poltophagy it may be said that in many people leading an ordinary sedentary life there is only one good appetite in the day and consequently only one good meal, somewhere about mid-day. The second appetite, if any, is from five to eight in the evening. It is most important not to suggest to patients that their appetite is going to be immediately changed; that, for instance, they will not require breakfast. It is usually very much better for them to indulge their appetite. One patient did not omit breakfast for about two years after starting poltophagy, another was nearly a year. Abnormal frequency of meals soon ceases if patience is exercised. I recall one patient who commenced with five or six meals a day; after six weeks' treatment he had only one.

(*d*) *The absence of appetite.*—In the absence of appetite a patient must be encouraged not to eat even for two or three days. Good appetite and good digestion are generally the reward. In one case where there was an absence of appetite for periods of two, three, and four days with abstention from food there was decided hyperchlorydia at the same time.

(*e*) *Appetite and mastication.*—The question has often occurred to me whether in those commencing the practice the unaccustomed use of the muscles might not be a potent factor in producing the immediate diminution of appetite almost invariably noted.

(*f*) *Hunger.*—An interesting feature of the practice is that there is none of that uncomfortable faintness when a meal is passed over. On occasions when food is not obtainable for two or more hours over the accustomed time the appetite remains but without any discomfort; it might be described as postponed.

2. *Of taste and preferences for foods.*—An attractive feature of poltophagy is the idea that the food preferred (the food which gives the greatest pleasure) is the most suitable. This implies a trust in the indications of taste and appetite even in those who are in process of regeneration. This idea is at first somewhat difficult to grasp, but it must be understood that a certain amount of interpretation of preference is necessary. For instance, a great fondness for the juice of oranges or grapes was replaced in its turn by a wish for salads. This was interpretated to show a want for vegetable salts. A solution of these salts was prepared by boiling finely divided vegetables in milk and was found to replace preferences for fruit and salad in many other cases besides the one in point. It will be convenient to deal with the question of preferences under the following heads.

(*a*) *Vegetable salts.*—Fruit, vegetables, &c., are called for in most cases. It is important to take the greatest care in obtaining the purest food and that it should be cooked in the best possible way.

(*b*) *Fats.*—It is very remarkable that without exception all cases take a large amount of fat (about 100 to 150 grammes a day). This amount was taken by a patient who was losing two kilogrammes a week in weight. When this appetite shows itself in a case it is better to provide, as well as the best butter, freshly separated cream, the purest form in which fat can be obtained. The quantity eaten is by no means constant, varying from day to day, while some days hardly any at all is required.

(*c*) *Starches, dextrins, sugars.*—It is noticed in some cases that the appetite for starch is replaced by a preference for dextrins, prepared either by frying bread or potatoes in butter or oil, or else thoroughly toasting bread. Dextrins, it must be remembered, are pepsinogens (Schiff). This may account for the popularity of the many patent foods now manufactured by the treatment of cereals by superheated

[1] Part I. was published in THE LANCET of May 20th, 1905, p. 1334.

steam. Starch itself is called for in the form of rice, bread, or potatoes. Preferences between these forms of starch curiously enough seem to be distinct.

(*d*) *Proteids.*—The appetite for this form of food is the least distinct (except in the case of meat). The want of proteid generally shows itself in the form of faintness or a condition of nervousness and irritability. It is certainly the least defined of the preferences (the reason possibly being that it is the tasteless ingredient of so many foods). In the case of meat, on the contrary, there is a very distinct and unmistakable want which occurs after physical strain, when the individual is not fit, or after such mental strain as travelling. A plausible explanation of this phenomenon is afforded by the work of Dr. Sloss of Brussels who showed that tetanised muscle gives off NH_3 instead of CO_2. Might not that fierce and unmistakable appetite for meat show that in consequence of merely temporary or more permanent degenerative changes there is need of proteid on the part of the muscle tissue?

(*e*) *Fluids.*—*Water:* Thirst often presents very interesting phenomena. There is a condition in which the body tends to store water; for instance, on days when an unusual amount of meat is taken there may be a well-marked thirst with an increased intake of water. This excess water may be lost in a few days, curiously enough accompanied by the loss (at least in one patient in whom analyses were being made) of as much as 16·5 grammes of NaCl in the day. In the early stages, thirst as well as the amount of urine, tends to be variable. In later stages no water is as a rule called for till midday, the urine gets low in amount, as in the case of Professor Chittenden.[2] The case of Professor Mendel, on the contrary,[3] resembles an early case in which the body makes use of more water. In the first instance, I take it, that economy is shown in the case of water as well as in the other ingredients of the ingesta. Another point is that the body supports a loss of water during exercise with much less urgent thirst. Another interesting observation has been made that, during the conditions of water storage, there is a decidedly increased blood pressure which diminishes when the water is lost. Might not the cause of high blood pressure be that when there is an increased quantity of water stored in the tissues, it exercises a pressure on the capillaries and so increases the blood pressure. *Alcohol:* A craving for alcohol has been known gradually to disappear during the practice of poltophagy. A preference for alcohol is shown when there is exhaustion due to over-exercise or in cold weather, but only in small quantities. The association found in the study of preferences of meat, tea, coffee, and alcohol, as concomitants of exhaustion, throws a suggestive light on the craving for stimulants. Might it not indicate a need of a degenerate body, and if this is found to be the explanation would not the treatment of such conditions be to look at them, not as a morbid manifestation of the brain, but as an indication of a physical state of degeneration? The most distinctly recognised preferences are fats, meats, vegetable salts, and starches (except in cases that prefer dextrins). Sugars in the form of sweets, pastry, bon-bons, and cakes belong to a group of preferences that, generally speaking, appear to give less subsequent satisfaction than do the stronger preferences; the end-point is not so distinct in sugars.

3. *The acquirement of poltophagy.*—In teaching suitable cases to practise this habit it is essential to bear in mind the nature of the complexity of the unconscious series of efferent and afferent impulses, movements, and secretions. In the process, psychical, ordinary, and special sensations, complex coördinated impulses to the muscles of the cheeks, the lips, the tongue, the jaw, the soft palate, and the pharynx all take a part that has been allotted to them in the long process of evolution. It must be remembered as well that the methods of the ingestion of food take the first rank in the order of the vital processes of the body. I will briefly state the means that experience has shown are most likely to be used in practice.

(*a*) *By counting the number of mastications.*—Interest has been taken in the number of movements of the jaw made in the disposal of food. This shows remarkable variations, even in the same individual; they seem to depend on many different causes. Recently I observed that a kangaroo gave over 80 mastications to a piece of bread. In a case that digested starch with difficulty it was often over 150 (see above, Starches). Mr. Gladstone, it is said, was in the habit of attributing his strength to masticating his food from 30 to 35 times. An inquiring friend of mine had the curiosity to count the number at a dinner at Cambridge from the spectators' gallery and found that it was more often from 60 to 70, so that in reality Mr. Gladstone was more poltophagic than he knew. He did not count his mastications, therein showing his habitual wisdom. I feel that it cannot be too much emphasised that there are numbers of cases in which attention to automatic acts is very decidedly harmful. So that this method, unless especially adaptable to certain cases, should be used with caution.

(*b*) *By hyper-mastication* (conscious retention of the food a long time in the mouth).—The objection to this practice is that it must interfere with the natural series of events by the continual inhibitory action of the will. It may be effected by pressing the tongue against the hard palate at its hinder part. N.B.—In the case of the digestion of starches this will cause the inhibition of the action of the ptyalin when part of the starch has been converted into dextrose.

(*c*) *Masticating until taste is absent.*—This, I take it, is making a sensation (of which one takes other cognisance than the agreeable one of pleasing the palate) mark the end-point of an unconscious and automatic series of events. Personally, I feel that the process of mastication and deglutition is complete in itself and so complicated that it cannot be interfered with by any arbitrary divisions of its periods by the will, except to its detriment. A useful plan that has stood the test of experience is to direct patients to commence by masticating one or two teaspoonsful of flaked wheat or else one of the many preparations of oatmeal once or twice in the day before meals. Afterwards the patients should be instructed in as much as is thought advisable of the nature of mastication, &c., and in understanding that there is only one thing which it is important for him to remember and that is not to push the food backwards against the soft palate with the tongue. Any symptom of revolt against the practice is, I believe, an indication of rest for a day or two.

4. *Considerations involving body habit.*—No one in the practice of the medical profession is without a great respect for habit and few cannot recall startling events following on too abrupt changes. It seems to make little difference whether it is a change from a bad to a good habit or *vice versâ*. The result of the exceptional opportunities that I have had of observing cases commencing and actually practising poltophagy is to have a far greater respect for what is called body habit. I recall one patient in particular who commenced the practice during hard work and who went on very well for two or three weeks, showing all the usual symptoms of improvement in health, increased power of work, &c. At the end of three weeks he lost weight and had his power of work seriously interfered with for some 18 months. In cases in which there is habitual strain or chronic disease, especially in nervous cases, as much care as possible should be taken in the early stages of the treatment. The ideal conditions would be an open-air life in the best climate available, with a possibility of perfect rest. Weight and the general condition require, of course, careful watching. The precautions to be taken with the more healthy must vary with individuals, but even in these cases care must be taken. These remarks must not be taken in any alarmist spirit but in such an early stage of a practice, which, though of the highest value for the treatment of chronic disease, is in its infancy from the point of view of practical experience, it is important to emphasise the difficulties of the treatment. As long as it is borne in mind that the practice involves a complete change of body habit it will, I feel sure, be found to present few difficulties in practice with the employment of the ordinary precautions that medical experience would suggest.

5. *Changes in the fæces.*—There is a very marked decrease in the weight of the fæces. The most conspicuous feature, however, is the absence of the ordinary fæcal odour. The form and character of the fæces may be classified as follows. (*a*) Mouldings of the sacculi of the large intestine which are of about the size of a hazel nut, smooth, and occasionally faceted. Their colour is occasionally dark green, more frequently dark brown, less frequently a lighter brown. There is a clean fracture, showing a marked dryness. They are usually covered with a thin coating of mucus. (*b*) Adherent forms of (*a*). The adherent masses are obviously formed by the adhesions of the sacculated mouldings; they

[2] Physiological Economy in Nutrition, pp. 24-29.
[3] Op. cit., pp. 53-59.

are usually mixed with the isolated form of moulding described above. Their colour is generally lighter than (*a*) and they are usually a little less hard. (*c*) Rectal mouldings with indications of the sacculi mouldings. This form varies from that of an ordinary rectal moulding marked with wavy lines, to distinct and unmistakeable prominences showing the mouldings of the sacculi of the large intestine. The colour has a tendency to be lighter and the material to be of a softer consistency. (*d*) An ordinary unmarked rectal moulding which has a tendency to be of a lighter colour and less firm in consistency. (*e*) An unformed soft motion. The most common form is that of the isolated mouldings of the sacculi, the other forms being exceptional.

A very interesting form of evacuation is seen when there is intestinal irritation from any cause, when there is occasionally seen a series, as it were, of the forms described above, commencing with the isolated mouldings of the sacculi and ending with the soft unformed material. This might be thought to indicate that the difference in form merely shows the length of stay in the intestinal canal. In several cases the habitual length of time between ingestion and egestion (shown by taking charcoal) has been found to be about three or five days. There is not a daily evacuation in the early stages of poltophagy; there may be intervals of from one to two or as many as three or four days.

6. *Changes in the large intestine.*—All those who have had experience in the observation of subjects in the dissecting-room, &c., cannot fail to have noticed the large size of the sigmoid flexure commonly found; sometimes it is enormous. In one case in which the bowel had been large it is now very much smaller and muscular (more distinctly felt); the mouldings described above can be felt *in situ*. In this case there had been a period of trouble that was due to the accumulation of fæces in the neighbourhood of the cæcum. The question naturally occurs to one that in the event of a case having a large sigmoid flexure there might be some difficulty from atony, the bowel failing to deal with the diminished quantity of fæces. This may also explain the long intervals of time between the evacuations as noted above. The habitual state of the fæces can, I think, be an indication of the condition of the bowel, if not an indication of the state of the muscular coats, at any rate of the size of its lumen.

7. *Changes produced by poltophagy.*—The chief changes are: as regards appetite it tends to become well defined at the commencement of a meal, as well as to cease as definitely at the end. There is a marked increase of pleasure in eating. The taste for simple food becomes more pronounced, preferences are more defined (if care be taken to study and to indulge them). The fæces are lessened in amount and are odourless; on those occasions in which odour is present there is marked malaise and discomfort. The large intestine gets smaller and the fæces tend to remain a longer time in the bowel. In all cases it can be said that there is an extraordinary change in the general health, much more of the joy of living, increased power of work, and freedom from the infinitely troublesome concomitants of chronic disease. It can be safely said that practically without exception there has been a remarkable improvement.

8. *Conclusion.*—In this paper I have brought together a few observations the result of some three years' experience in what one must feel is almost a new branch of knowledge. The opinions expressed here are of the order of those ideas of so provisional a character that they are subject to frequent alterations as experience is gained, some points being strengthened, others abandoned, a state of affairs characteristic of such an inquiry. There are many points, and especially those of the nature of speculations, it would have been wiser perhaps to have omitted. They are brought forward as suggestions and hints, the most speculative of which even may prove to be useful to those who may be tempted to pursue the same line of inquiry. The conviction grows that the careful study of the psychical preferences of the body, whether degenerating, regenerating, or healthy (?), will reveal unsuspectedly important principles in the science of living. An inquiry such as this shows the great need of some method of measurement of the state of health and fitness of a subject under observation—for instance, to compare a poltophagic person with one who is not. One of the greatest services that Professor Chittenden has rendered in his work on the economy of nutrition is to have used as many means as he could to measure the condition of the subject he was observing. He was singularly fortunate in that Dr. Anderson, holding the unique position of physiologist to a gymnasium, was able to give him his assistance. It will be obvious to those who read Dr. Anderson's able reports that he has made full use of his opportunities for observation. It is not too much to say that there is no problem among those vexed questions of sociology which does not need the quieting influence of scientific measurement. Not only the unhealthy and inefficient but the criminal, the pauper, &c., requires some sort of measurement before they are condemned to the curious means of regeneration used in our prisons and workhouses. Such work as that of Professor Chittenden points the way along which one can hope to find that the long martyrdom of man to vagueness and ignorance will give way to a scientific knowledge of regeneration and humaniculture.

I cannot terminate this paper without far too short a reference to the history of Mr. Fletcher's labours in this field of knowledge. For years he persisted in advancing his plea for investigation to almost anyone who would listen to him and it was not until he met Mr. van Someren that he had a sympathetic and intelligent hearing. The latter wrote a striking and interesting paper, which was read at the meeting of the British Medical Association, entitled "Was Luigi Cornaro Right?" The paper was afterwards read at the International Congress of Physiology at Turin. The result of their long visit to Cambridge was to excite an interest in the question at Yale, where Professor Chittenden carried out the work previously referred to. To both these gentlemen I owe a very special debt of gratitude; to Mr. Fletcher for the suggestion that has been the means of restoring my health, and to both of them for giving me the opportunity of having the experience which has enabled me to write this paper. If there is any difference of opinion on questions of practice between these gentlemen and myself I am sure that both of them have the same hope which I have—that the further investigation of these phenomena should be undertaken in their entirety by those organisations of science where alone it is possible to carry on so wide and comprehensive an inquiry to its logical conclusion.

Varese (Como), Italy.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TWO CASES OF IDIOPATHIC GENERAL CATARACT IN CHILDREN CLOSELY RELATED.

BY T. HUNTER, M.A., B.SC., M.B., CH.B. GLASG.,
CAPTAIN, I.M.S.; CIVIL SURGEON.

THESE two cases were brought together to the out-patient dispensary at Fatehgarh, United Provinces, India. They were first cousins, the father of one child and the mother of the other being brother and sister. The home of one child was in Benares and that of the other in Amritsar, Punjab. They were accompanied to the dispensary by the father of the boy and the grandfather of both. These two men were strong healthy individuals. The grandfather had an incipient cataract in his left eye but no other defect or disease could be elicited on inquiry into the family histories. The people were respectable, well-to-do Hindus of the literary caste.

One of the patients was a boy, aged 22 months. He was a strong, healthy, and intelligent child, and showed no sign of rickets. He had a complete cataract in his right eye, pearly-white in appearance, and a slight haziness of the lens in the left eye. The defect in the right eye had been noticed by his friends for about one and a half months. Examination with the ophthalmoscope showed that it was mature. Both pupils reacted normally to light.

The other patient was a girl, aged about five years. She was a healthy, intelligent child. The left eye was cataractous. To the naked eye the pupil seemed uniformly pearly-white, but on examination with the ophthalmoscope glittering sectors were noted. The child was able to count fingers with this eye. The defect had been first noticed by the child's parents about 12 months prior to examination. Both

pupils reacted normally to light. The right eye was normal in appearance, emmetropic, and had a healthy fundus.

Fatehgarh, United Provinces, India.

A CASE OF SUPPURATION OF THE EYELID AND SUPRA-ORBITAL REGION FOLLOWING CAUTERISATION OF THE NASAL REGIONS.

BY W. R. H. STEWART, F.R.C.S. EDIN., M.R.C.S. ENG.,

SURGEON TO THE EAR AND THROAT DEPARTMENT, GREAT NORTHERN CENTRAL HOSPITAL; CONSULTING SURGEON TO THE LONDON THROAT HOSPITAL, ETC.

THE patient, a boy, aged 16 years, consulted me on Friday, Jan. 6th, for nasal obstruction. Both inferior turbinates had their mucous membranes hypertrophied. I cauterised the right side and sent him home with instructions to keep quiet indoors. These instructions he carried out as follows. The rest of that day (Friday) he spent walking about London. On Saturday he went shopping in the morning and to a theatre in the afternoon. On Sunday he went to church in the morning and visiting in the afternoon. On Monday morning he felt pain in the eyebrow; he, however, drove to Putney for a dance that evening. On Tuesday, notwithstanding pain, he again went to the theatre. On Wednesday he returned home and went to bed. On Friday he came to me—a bitter east wind was blowing—and I found the supra-orbital region and eyelid swollen and œdematous. The following week I freely incised both places and found a large amount of pus. After this the boy did well. Never having come across a similar sequel I think it worth recording as emphasising the necessity of care, even after a simple cauterisation, more especially in bad weather.

Devonshire-street, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL.

A CASE OF PSORIASIS DIFFUSA.

(Under the care of Dr. WHEELTON HIND.)

FOR the notes of the case we are indebted to Mr. Eric E. Young, house surgeon.

The patient, a female aged 18 years, was admitted to the North Staffordshire Infirmary on March 10th, 1905, under the care of Dr. Wheelton Hind, suffering from psoriasis diffusa. A year previously she had first noticed an eruption commencing on the forearms and the legs and this had rapidly spread. She attended the out-patient department for many months with little or no benefit, various drugs and applications being employed. At one time it was thought to be a case of specific disease but a long course of mercury and iodide of potassium produced no change in the condition. As she steadily got worse and the eruption continued to spread without showing any signs of disappearing she was admitted to the hospital and the first photograph shows the condition of her arms and hands. The photographs of the legs and trunk were not a success and therefore are not published. The face was not affected though the patient stated that she had had a scaly eruption on the cheeks. The nails also were normal. The whole of the arms, the forearms, the hands and fingers, the thighs, the legs, and the dorsum of the feet were covered with dense silvery scales, both the flexor and extensor surfaces being equally affected. Great pain was complained of in the hands owing to the cracking and excoriation of the skin and she could not even hold a pen within the fingers. Numerous patches of variable size were also present on the anterior and posterior aspects of the abdomen and thorax. The temperature was normal and the patient's general health did not seem to be in the least affected.

FIG. 1.

Condition of patient before treatment.

Treatment was carried out in the following manner. A daily morning bath was given for half an hour in water boiled with bran and at a temperature of 95° F. After the bath the body was rubbed with salicylic acid ointment (10 per cent.). Two grains of thyroid extract in the form of tabloids were given night and morning, and the patient was ordered a mixture containing four minims of arsenical solution and 20 grains of citrate of potassium three times a day. The dose of arsenical solution was quickly increased to ten minims and in a week the amount of the thyroid extract was increased to five grains night and morning. The second photograph, taken ten days later, shows very

FIG. 2.

Condition of patient after treatment.

markedly the effects of the treatment. The patient has now left the hospital but has been ordered a course of treatment by thyroid extract and arsenic.

Remarks by Mr. YOUNG.—The foregoing case is, to my mind, of sufficient interest to place on record if only because it shows how a patient who has been attending the out-patient department of a large hospital for some time may occasionally derive much benefit from a short period of proper and efficient treatment when admitted as an in-patient. I must express my gratitude to Dr. Hind for so kindly according me his permission to publish the notes and to reproduce the photographs of the case.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

A CASE OF ANTHRAX SUCCESSFULLY TREATED WITH SCLAVO'S SERUM.

(Under the care of Mr. J. LIONEL STRETTON.)

THE patient, a female, aged 17 years, was sent to the Kidderminster Infirmary and Children's Hospital by Mr. H. L.

Miles on April 24th, suffering from a well-marked malignant pustule situated in front of the right ear. She was employed as a spinner and she stated that she remembered scratching her ear with a hairpin a week previously. Two days later she felt an irritable papule which gradually increased in size. The pustule involved the lobule of the ear, the anterior wall of the auditory canal, and the adjacent portion of the cheek. There was a considerable amount of œdema and swelling extending forwards to the malar region and downwards into the neck. Her general condition was satisfactory. Examination of the serum from some of the surrounding vesicles showed large quantities of anthrax-like bacilli. She was immediately admitted and 40 cubic centimetres of Sclavo's serum were injected above her abdomen. There were no local reaction and very little general effect, her highest temperature (100° F.) being reached in 50 hours. The swelling gradually subsided and she was discharged cured in six days.

It was intended to save some tubes of serum for cultivation experiments but this was unfortunately forgotten. On the second day some tubes were taken and were then sent to the Clinical Research Association. The report upon them was as follows: "On direct examination no anthrax bacilli could be found. Media were inoculated and cultures containing the streptococcus pyogenes, staphylococcus pyogenes albus and aureus, and some rod-shaped organisms were obtained, but no colonies of the bacillus anthracis were present."

Remarks by Mr. STRETTON.—This is the fifth case treated in this country by Sclavo's serum without operation and the fourth successful one. I have already reported a case treated by the combined method of excision and inoculation and I am still of opinion that this method ought to be adopted in all cases where it is possible freely to excise the pustule. In this case it was quite impossible and I therefore felt fully justified in using the serum alone. The case was certainly a bad one and from my experience I should have expected a fatal result. How far this was averted by the use of the serum it is impossible to say but the results so far are certainly encouraging. It is interesting to note that no bacilli were found in the serum which was taken 36 hours after the injection, although it was previously teeming with them.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Morbid Anatomy of Myasthenia Gravis.—Morbid Growth from Angora Ewe.—True Hermaphroditism in a Leghorn Fowl.—Congenital Malformation of Lower Extremities.

A MEETING of this society was held on May 16th, Mr. RICKMAN J. GODLEE, the Vice-President, being in the chair.

Dr. E. FARQUHAR BUZZARD read a paper on, and showed specimens illustrative of, the Morbid Anatomy of Myasthenia Gravis. The central and peripheral nervous system in cases of this disease had been often examined by a number of competent observers but had not shown constant changes. During the last few years attention had been drawn to the occurrence of hypertrophy or tumours of the thymus gland associated, in certain cases, with deposits of lymphoid cells in the skeletal muscles, by Weigert, Goldflam, Hun, Link, and others. Dr. Buzzard had examined post mortem five cases of myasthenia, in three of which there were no marked naked eye changes. In one case, that of a woman, aged 29 years, there was a large thymus gland weighing 41 grammes and having the characteristic bilobar appearance of the normal gland in early life. Microscopically it presented the features of a simple hypertrophy and was noticeably free from eosinophile cells, large numbers of which are generally found in the enlarged glands of children. In another case there was found a large mass in the anterior mediastinum in the position of the thymus gland but without its characteristic appearance. The upper part of the mass resembled a new growth and was adherent to the surrounding structures; the lower part consisted of a multilocular cyst containing cloudy fluid. Sections of the neoplastic portion showed strands of connective tissue between which were large masses of small round cells and very few definite concentric corpuscles. The walls of the cystic portion showed similar features but contained occasional Hassall bodies. In the three other cases the thymic remains did not present any features which could be considered abnormal. The central and peripheral nervous system was carefully examined in all cases but no constant or important changes were detected. The investigation of the muscles and of the visceral organs yielded positive results of a constant kind in all five patients. The most important and characteristic of these was the presence of small foci of cells resembling lymphocytes scattered irregularly between the cells of a glandular organ. The term "lymphorrhage" might be applied to these collections both on account of the characters of the cells of which they were composed and because their general appearance was suggestive of a capillary hæmorrhage with the distinction that the cells were not red blood corpuscles. A small empty capillary vessel lined by a single layer of endothelium was sometimes observed in the neighbourhood of these lymphorrhages. The latter had been found in a smaller or larger number of the muscles of each case but, in some instances, only after a prolonged search. The ocular muscles had been most fruitful in the three cases in which they had been examined. The only other changes in the muscles were presented by a few fibres which had become swollen and rounded, more hyaline or granular in appearance, and often showing a tendency to stain a paler hue with eosin or fuchsin. Lymphorrhages were found also in the liver, the adrenal bodies, the thyroid gland, and in the cardiac muscle, and in one instance a similar condition was detected in a posterior spinal root ganglion. In the glandular organs the cellular deposits were frequently unaccompanied by any other changes, but in a few instances, where the lymphorrhage was of larger size, the neighbouring gland cells had undergone degeneration or destruction. As a result of the investigation it was evident that the thymus tumours or thymus hypertrophy were not constant characteristics and that they must not be regarded as the origin of the other changes but rather as associated phenomena of frequent occurrence and great interest. The fact that in five consecutive cases similar microscopical changes had been found in the muscles and other organs went a long way towards establishing a definite morbid anatomy for the disease. The objection to that view, which might be advanced on the ground that previous observers had failed to describe these changes, was met by the very extensive search required to establish their presence and by the well-known truth that what was not particularly looked for was frequently overlooked. The absence of blood changes and of any alteration in the general lymphatic system rendered the origin of the lymphocytic deposits very obscure and little light could be thrown on the relation of the morbid changes to the clinical features of the disease.

Dr. W. E. DE KORTÉ showed a Morbid Growth obtained from the Anus of an Angora Ewe. The Angora goat was an importation into South Africa where this disease occurred and it was remarkable that the aboriginal goat of the country, the so-called Cape goat, was practically immune to this disease. The ewe was nearly always affected, though rarely the ram was also attacked, and then the penis was said to be the site of the disease. The apparent immunity of the male might, however, be due to their relatively small number in a flock compared to the females. The disease rarely, if ever, affected animals under two years of age, the age incidence being from two to four years. Particular strains of ewes appeared to be more susceptible than others, those having a peculiar whitish appearance about the anus, roots of the horns, eyes, and nostrils being particularly liable to the disease. The disease started as a small wart which gradually spread and the whole of the anus might become involved. It soon, however, underwent ulceration and presented a raw fungating mass which bled readily and emitted a horrible fœtor and became the abode of maggots and of bush lice. A further point of interest was the incurability of the disease; all sorts of caustics, including arsenious acid, had been tried without avail and after lingering on for some months the affected animal died in a cachectic condition. So well was the mortal character of the disease recognised that careful farmers invariably cut the throats of the diseased ewes as soon as it was detected and this was done not only on humanitarian grounds but because it was generally believed to prevent the spread of the malady in the flock, the ram being supposed to convey the disease from one animal to another. He had, unfortunately, not been able to make post-mortem examinations so he could not say whether

metastasis occurred. As regarded the nature of the tumour there was some difference of opinion. Dr. E. F. Bashford, to whom the specimens were submitted, had no hesitation in saying that the growth was of a granulomatous character, though he did not give any particular reason for this conclusion. On the other hand, Mr. S. G. Shattock, Dr. R. T. Hewlett, and Mr. J. H. Targett thought the growth was an alveolar sarcoma. Dr. de Korté was of opinion that there were two forms of infection, the deeper one consisting of a fibrous network containing comparatively large nucleated cells. There were no blood-vessels in this deeper portion or any ulceration. The superficial portion of the growth was evidently of an ulcerative character and was no doubt the seat of a bacterial infection, which it could hardly escape, exposed as it must be from its situation to all sorts of contamination.

Mr. SHATTOCK and Dr. C. G. SELIGMANN exhibited and described in detail True Hermaphroditism in the Fowl. The ultimate criterion of sex was the structure of the reproductive glands; an abnormal disposition of the sexual passages or misdevelopment of the external generative organs might lead to ambiguity of sex during life, but such observations did not constitute the condition of true hermaphroditism. So far from viewing hermaphroditism as a phenomenon altogether abnormal Mr. Shattock and Dr. Seligmann held it rather to represent a reversion to the primitive ancestral form, for as one descended in the scale it became fairly common as a variation (e.g., in fish) and still lower it became the normal disposition in certain forms. The presence in the human embryo of a double set of sexual passages, male and female, and the undifferentiated state of the sexual glands on their first appearance, pointed to human descent having taken place through a hermaphrodite ancestry. The bird in question was a two-year-old Leghorn fowl which externally exhibited the comb and wattles with the spurs of a cock but the tail of a hen. Its sexual physiology was quite negative. The dissection showed a well-developed *left* oviduct and a short diminutive *right;* a vas deferens was present on each side. The sexual glands were convoluted on the surface and of altogether an abnormal form. The left gland consisted of inactive tubuli; serial sections of its lower end revealed two ova unconnected with any tubular structures and provided with a proper follicular wall; the vitellus of each presented an eccentric oval space answering to a germinal vesicle. The serial sections proved the structures in question to be spherical and not cross sections of distended tubes, none of which were anywhere present. The sexual gland of the right side was the smaller and consisted of inactive tubuli like the left, but at one spot a group of tubuli was met with in which active cell proliferation and spermatogenesis were in progress, spermatozoa being present in the more central part of one of the tubuli. The glands were thus, taken together, bisexual; one contained ova, the other spermatozoa, and on the left side (on which ova were present) the oviduct was normal; each gland was furnished with a vas deferens. Potentially, therefore, the bird was capable of performing to the full extent both male and female functions. Mr. Shattock and Dr. Seligmann had been led from these and other data to hold that the not uncommon and well-known change of plumage from female to male and more rarely from male to female, possibly indicated a bisexual character not necessarily of the generative glands and ducts but of the glands. They had clear evidence, from having such birds under observation, that where the duck after ceasing to lay assumed the male plumage its sexual proclivities underwent a corresponding change and it would "tread" the female bird. For the production of external male characters the experiments of Mr. Shattock and Dr. Seligmann had shown that the testicular tissue need not be in any way connected with a duct, and, moreover, that a very small piece would suffice to bring about the result. In regard to such change of plumage Mr Shattock and Dr. Seligmann were investigating material to ascertain whether areas of tissue capable of producing a male internal secretion were present in the female bird, either in the proper sexual gland or dislocated in adjacent organs.—Mr. T. W. P. LAWRENCE said that true hermaphroditism did exist in the human race and about six undoubted cases had been recorded. The organs from one of these cases were in University College Museum, a testicle on the one side and an ovary on the other. He mentioned another case which had a testicle in the right half of the scrotum and an ovary on the left side. She menstruated from 17 years old till the age of 43 years. She performed the functions of a female till the age of 36 years when she acquired male characteristics, after which she performed the functions of a male.

Mr. HENRY RUNDLE communicated a case (and the preparation and photographs were exhibited) of an Asymmetrical Congenital Malformation of the Lower Extremities. The patient was a male, aged ten years, first seen in 1884, an illegitimate child, well developed in all respects but for the remarkable deformity of the lower limbs. His legs were so short that when he stood erect with the arms dependent the tips of his fingers nearly touched the ground. The weight of the body was supported mainly by the right leg, the length of which was nine and a quarter inches, that of the left leg being 14½ inches. This difference in the length of the limb was partially compensated by the obliquity of the pelvis which was tilted to the right side. The patient died from pulmonary tuberculosis in the Royal Portsmouth Hospital in June, 1904, when the following condition of the limbs was found. In the left extremity the tibia and the fibula were of the full length and presented no marked abnormality except that both were slightly curved forwards and that the head of the tibia was unnaturally flat from before backwards. Articulating with the head of the tibia was an osseous element of triangular shape, three and a half inches long, which represented an ill-developed femur. On the right side the skeleton of the limb was considerably more misshapen and much the shorter of the two, measuring 13 inches as compared with 18 inches on the left. The fibula was five and a half inches long and except for its lower end was uniformly diminutive. The lower end had its normal relations and was of full size; the upper end did not articulate with the other bone of the leg. The shaft of the tibia a short distance from its lower end expanded into a broad triangular process, each of the upper angles of which was enlarged in a manner suggestive of an articular extremity. The outer of these, which was about three inches above the unattached upper end of the fibula, probably represented a greatly flattened head, whilst the inner was possibly an outgrowth of bone into the adductor muscles. The upper border of the triangular expansion was concave and bridged across by a ligamentous structure, with which an undersized patella was connected.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—A meeting of this association was held on May 18th at the rooms of the Medical Society of London, Dr. R. Percy Smith, the President, being in the chair.—Prior to the discussion of papers Dr. C. A. Mercier drew the attention of the association to the remarkable state of things existing in the Youghal Asylum, Cork, and proposed the following motion:—

> This association is informed that the auxiliary asylum at Youghal is being carried on under the following conditions. The staff consists, in addition to eight nuns, of eight male and five female attendants to 229 male and 149 female patients. For this population of 378 patients there is no resident physician. (In England no more than 50 can be detained in an institution without a resident medical officer.) The superintendent of the Cork District Asylum is held by the Lunacy Inspectors and the Lord Lieutenant responsible for the administration of the Youghal Asylum and for the proper treatment of the patients therein contained, but by a regulation of the committee of management he is not allowed to visit the Youghal Asylum nor to see the patients therein. This regulation, made by the committee of management of the Cork District Asylum has been pronounced by the Inspectors of Lunatics and admitted by the Chief Secretary to the Lord Lieutenant to be illegal. This association expresses its astonishment and profound regret that treatment of the insane so retrograde and so objectionable in character should be possible and trusts that steps will be taken at once by the proper authorities to enforce the law and to terminate so deplorable a mode of treatment of insane persons.

The motion was seconded by Dr. G. Bower.—Dr. W. R. Dawson (Dublin) confirmed the particulars stated in the motion and read extracts from reports of Parliament when the subject was discussed there.—The motion was unanimously carried.—Dr. W. M. A. Smith opened a discussion on the Use of Hypnotic Drugs in the Treatment of Insomnia.—Dr. Robert Jones was of opinion that arterio-sclerosis was a very important condition in those cases in which great mental distress prevented sleep and he inclined to the belief that the effect of alcohol, which was used in asylums with a good deal of circumspection, was immediately to dilate the arteries in the cerebral cortex and to help sleep in that way. He had repeatedly used alcohol merely as a hypnotic and one extremely restless patient, who had not been taking his food

was fed with a tube and given half a pint of stout twice a day with great benefit. He regarded sulphonal as a deadly poison to the neurons and believed that he had seen incurability follow the use of it. There was much to be said in favour of chemical restraint and he had found great benefit follow ten grains of calomel. He referred to the question of fatigue and to Sir William Gowers's article on the subject. He felt certain that he had seen cases in asylum in which the thoughtful administration of a hypnotic in puerperal cases had avoided insanity and in that he had the support of Dr. G. F. Blandford's article in Quain's "Dictionary of Medicine."—Dr. Blandford reminded the meeting that the subject was debated before the association not long ago and he had not altered his views since then. There was much truth in what Dr. H. Rayner said on that occasion but the view was carried too far. All recognised the importance of regulating the digestive organs and giving medicines accordingly but he was certain that he had seen cases in which the giving of narcotic drugs had prevented the patient drifting into insanity and he was in the habit of seeing cases at an earlier stage than those in asylums. A restless patient who was suddenly put into a comfortable padded room in an asylum was very likely to go to sleep and he would not dream of giving drugs to such a one. He confirmed Dr. Jones's remarks about a large dose of calomel and he, too, looked upon sulphonal as exploded. Hyoscine was not now mentioned much and appeared to have gone out of fashion. It seemed to be a dangerous medicine but he would be glad to hear the experience of others on the point.—Dr. Fletcher Beach thought that much depended on the amount of sulphonal given. Doubtless larger doses of it were given in asylums than for the treatment of nerve cases. He had never administered more than 15 grains at the bedside and its use in cases verging upon insanity had been very beneficial.—Dr. Mercier was not sure that there had not been a wave of therapeutic Nihilism in the specialty. Patients were sent to asylums in order to be detained under care and treatment, yet as soon as they arrived there the cry was that they must not be restrained. If they were to be treated by the open door why should not that be done outside? He saw no objection to chemical restraint and related cases in which sudden breakdown had been treated with narcotics and been followed by immediate cure. He also laid great stress upon a full stomach as a powerful aid to sleep.—Dr. Bedford Pierce defended sulphonal as he had found it a good friend, though he agreed that hypnotics should be very sparingly used.—Dr. W. C. S. Clapham deprecated giving calomel to patients who had suffered from typhoid fever, and Dr. E. Kingdon said a good word for hyoscine, $\frac{1}{100}$th of a grain hypodermically.—Dr. T. D. Savill advocated the taking of the arterial tension before administering hypnotics, as most of them affected the arteries in some way.—Dr. Harry Corner believed that 90 per cent. of the cases could be treated without hypnotics by mechanical and food aids, though much depended on the nurse. He rarely gave hypnotics without regretting it.—The President said that he had not seen any disagreeable after-effects from hypnotics but he had known people complain of extreme weariness and exhaustion after veronal. Dr. Jones had referred to sulphonal as a deadly poison to the neurons but all the drugs which had been mentioned were deadly poisons to something. He thought sulphonal should not be relegated entirely to the scrap-heap. To some practitioners chloral and morphine seemed about the only drugs of that class known.—Dr. Smith replied.—Mr. G. T. Hine, F.R.I.B.A. (an honorary member of the association), exhibited and described the plans of the new London County Council asylum projected at Long Grove, near Epsom.—In the evening the members dined together at the Café Monico.

——A meeting of the Northern and Midland division of this society was held at the Retreat, York, on May 4th, Dr. T. W. Macdowall of Morpeth being in the chair.—Dr. H. J. Mackenzie of York described a case of Neurasthenia followed by Melancholia. The patient was a man, aged 53 years, who had suffered from indigestion for years and from neurasthenia for about five months. Treatment and dieting had not benefited his indigestion and he had been steadily losing flesh. One sister had been insane. On admission to the Retreat he was very thin, weighing just under eight stones, though a tall man. He was much depressed and had a settled belief that he could never be better and that his stomach was dead and that it was useless to eat. The sight or even the mention of food would bring on an attack of hysterical screaming. He had soon to be fed forcibly for a few days and then he took food again himself, but he did not gain weight and his mental state grew worse. He developed a hæmatoma auris which suppurated and had to be opened freely, but in the end it healed well and with little deformity. At last he refused food entirely and had to be fed forcibly four times a day for about four months. Under this treatment he improved physically, but it was not till he had gained about 20 pounds in weight that any marked mental improvement set in. He improved steadily from this time and went home well after seven and a half months' residence. He has remained well since and his indigestion seems to have disappeared.—Dr. Norah Kemp described a case of Periodic Mania existing in a woman, aged 50 years, and in which during the last two and a half years recurrences had appeared every eight weeks with unfailing regularity. The relapses lasted about a week, exhibited all the symptoms of acute mania, were coincident with a menstrual period, and each was succeeded by a lucid interval of six weeks. The number of white blood corpuscles per cubic millimetre of blood was 16,000 at the beginning of the attack, rose to 34,000 at the height of the attack, and on recovery fell to 9000. The case was complicated with malignant disease, for which both breasts were removed in 1902. There has been a recurrence of this, which is being treated with x rays.—Dr. Thomas Johnstone of Leeds read a paper on Dementia Præcox. He thought that the best translation of dementia præcox was premature dementia, though it was usually translated as adolescent insanity. The mental symptoms varied according to the age at onset and the previous education and mental abilities. In the present state of knowledge it was not always possible to tell whether a patient with adolescent insanity or dementia præcox would become rapidly worse or would make an apparent recovery. Many cases of dementia præcox which apparently recovered relapsed late in life and showed symptoms of katatonic excitement or stupor or these conditions alternating, and were called by some resistive melancholia. The prognosis was very grave.—Dr. William Francis Menzies of Cheddleton Asylum, Leek, read a paper on Some Points connected with Tuberculosis in Asylums. He explained that the asylum death-rate from tuberculosis was not falling in ratio to that of the general population and claimed that a considerable percentage of cases of higher grade amentia and primary adult insanity were precipitated by the tuberculous infection. These early cases were the source of most asylum tubercle and acted as foci from which others became infected. In conclusion, he discussed the diagnosis and treatment of the disease.—Dr. Bedford Pierce gave details of two cases of Atonic Dilatation of the Stomach successfully treated by Stendall's method which principally consists in the continuous application of heat to the abdomen. Abundant ordinary food is given at regular intervals. Drugs are not administered. A rapid gain in weight with contraction of the stomach was followed by recovery.

EPIDEMIOLOGICAL SOCIETY.—At a meeting held on May 19th, Dr. B. A. Whitelegge, the President, being in the chair, Dr. Arthur Ransome read a paper on the Significance of Phthisis Death-rates, illustrated by charts showing those for England and Wales since 1838, for Scotland since 1871, for Ireland since 1861, and for shorter periods in Liverpool and Manchester, the deaths of males and females being shown separately. Until 1874 certification of the cause of death was not compulsory, but notwithstanding much admitted irregularity he believed that the returns as regards phthisis were approximately correct. Phthisis was communicable but these curves showed that it was also endemic, carrying off like percentages in successive years in each locality. It also had a tendency to periodic waves something like the epidemics of the exanthemata at intervals of about a dozen years, and while on the whole falling in England and Scotland but rising in Ireland, the undulations in the curves for the two sexes corresponded in the great majority of instances. He had been quite unable, even in the case of a single community as that of Liverpool, to trace any connexion between the mortality and the "weather," temperature, or rainfall. In England the mortality had fallen since 1838 from 3800 to 1100 per 1,000,000, or over 0·70 per cent. In 1894, judging from the previous rate of decline, he had predicted the practical extinction in another 30 years, but these hopes were not likely to be fulfilled, the rate of decline having suffered

a retardation and the consummation could not be now expected earlier than the year 1930, or more probably about 20 years later. This reduction could not be ascribed to any direct repressive measures since it had been proceeding for 65 years, or probably nearer 100, and the earliest sanitary legislation was inaugurated subsequently to the years 1840–45, receiving its impulse from the visitations of cholera and influenza; and even since that period it had, so far as phthisis was concerned, been an "unconscious campaign," no special measures having been undertaken prior to 1890 against the spread of tuberculosis, the infectivity of which had been demonstrated by Koch's discovery of the bacillus and the observations of Cornet on the dust of rooms occupied by tuberculous individuals. The chief features in the "unconscious campaign" had been the recognition of the evils of defective ventilation, the drying of the soil by land drainage and sewerage works in towns, in connexion with which he referred to the observations of Sir George Buchanan and Dr. H. J. Bowditch, the sanitary improvement of dwellings, the amelioration of the social conditions of the masses, and the progress of temperance among all classes of the community. The effects of impure and re-breathed air in ill-ventilated rooms and workshops were the general lowering of the vitality and resistance of the individual, the presence of the tubercle bacillus and of others that coöperated with it, and the insanitary conditions that usually accompanied want of ventilation. The lowering of the ground water led to the drying of the foundations and walls of houses and the lessened liability to the predisposing influence of catarrhs, together with the abolition of cesspits, &c., while the admission of light and air into and around the dwellings of the poor was inimical to the retention of vitality by the bacillus outside the human body, and better and cheaper food and clothing were potent agencies for good. On the other hand, there was an adverse influence in the rapid growth of towns and the transference of the youth of the rural districts to crowded cities where in tenement dwellings and common lodging houses by night and ill-ventilated workshops by day and spending their leisure hours in the foul air of public-houses laden with tubercubous dust from dried sputa, they often being ill-fed to the verge of starvation, were prone to fall victims to the disease. It was difficult to estimate the influence of the spread of habits of temperance; abstainers were increasing in numbers in certain classes and there was less glaring drunkenness than formerly, but the consumption per head of beer and spirits being unchanged there was probably more "soaking"; undoubtedly the drunkard was an easy prey to tuberculosis but Dr. Ransome considered that the worst effects were to be found in the misery of the drunkard's home and the deprivation endured by his family. The higher mortality among men in Great Britain he must ascribe largely to the use of the common lodging-house, the long hours spent in the sputum-laden air of the public-house, and their habit of spitting everywhere. The phenomena of the increase of phthisis in Ireland to the extent of 25 per cent. in the last 37 years and of its greater incidence on the female sex were remarkable. The explanation of the former was to be found in the absence of any sanitary improvement, the filthy hovels of the peasantry, and the apathy of the urban authorities, with the utter inadequacy of the Sanitary Act of 1877, combined with the general deterioration of the physique of the population through the emigration of the able-bodied to America, while the excessive mortality of the women was probably due to their indoor life, the men to some extent counteracting the influence of the hovel by passing their time in the open air. They drank spirits to excess but did not sit like the Englishman in the public-house.—Sir Shirley F. Murphy remarked that among the very poor women were more affected than men by fluctuations in the labour market, for when work was scarce and food was scanty the labourer must have what there was and the wife went without, so that in some classes and localities the women were in a state of chronic starvation, but with the return of prosperity she felt the change to a liberal diet more than he did. There was in large towns a close correspondence between the extent of overcrowding and the death-rate, but overcrowding was merely an expression for poverty and want of food as much as want of room, while social amelioration meant better food as well as more air space in the dwelling. It had been suggested that the consumption of the milk of tuberculous cows might account for much tuberculosis in man, but it was certain that tuberculosis was most prevalent among those classes who were least able to indulge in the use of milk. The well-known susceptibility of drunkards to tuberculosis was probably due not so much to the direct effects of the alcohol on the organism as to the fact that their money was spent on drink instead of on wholesome food. Thus, too, the results of a time of prosperity were not so good as they might be, for much of the money earned was squandered in drink. The recent slackening of the fall in the mortality might, he thought, be explained by assuming that all the benefit to be derived from some factors, as sanitary improvement, had already been obtained and that there were therefore fewer causes in operation than formerly.—Dr. A. Newsholme thought that Dr. Ransome had made too much of the slower improvement of late years, for the same had been observed in the mortality from enteric fever, and was due to the persistence of the minor causes long after the greater, which were more under control, had been removed. The sole direct effort—viz., notification and its attendant measures—had not been long enough in operation, but he might claim to have done more by voluntary notification in Brighton than had been attained by compulsion in Sheffield. The chronicity of phthisis—its mean duration of at least three years—smoothed many manifestations of periodicity; the apparently marked peak of 1890 was explained rather by the great pandemic of influenza that accelerated the fatal termination of cases of phthisis. The whole question of the effect of drainage and sewerage works would have to be reconsidered, for they coincided with general sanitary improvement and in the period investigated by Sir G. Buchanan with one of increasing prosperity. Pervious soils on elevated sites were favoured by the well-to-do, low-lying, damp, and ill-drained areas being left to the poor. The effect of alcoholic excess was also indirect, consisting in loss of resistance, constant exposure to infection, and domestic misery.—Dr. E. C. Seaton defended Sir G. Buchanan's conclusions, maintaining that in the drained towns the improvement in the public health preceded any possible redistribution or movement of the people.—Dr. F. J. Allan took the same view, remarking that one lesson drawn from notification was the constant association of damp with the occurrence of phthisis in a house, while it was becoming more than ever a disease of the poor. He lamented the want of faith in notification met with in London owing to the impossibility at present of following it up by sanatorium treatment, which had a wonderful educational influence among the poor.—After a few observations by Dr. H. T. Bulstrode and the President Dr. Ransome remarked that neither poverty nor filth alone would cause phthisis, for none could be poorer than the fisher people on the north-west coast of Scotland, and those of St. Kilda lived on a floor or bed of accumulated filth, but neither were specially liable to phthisis, thanks to their life in the open air, though in St. Kilda the infant mortality from trismus and filth disease was appalling. The lesser mortality of men in Ireland was doubtless due to this cause.—Dr. J. F. W. Tatham of the General Register Office was appointed President of the society in place of Dr. B. A. Whitelegge, C.B., His Majesty's Chief Inspector of Factories, whose term of office has expired. Lieutenant-Colonel R. H. Firth, R.A.M.C., was appointed secretary for the Army.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society, which partook of the nature of a clinical demonstration of some diseases of children, was held on May 17th, Dr. J. O. Affleck, Vice-President, being in the chair.—Dr. John Thomson exhibited a case of Still's Type of Chronic Disease of the Joints. The patient was a girl, aged three years. The disease was first described by Dr. G. F. Still in 1896 in a paper read before the Royal Medical and Chirurgical Society. A number of such cases had previously been described as osteo-arthritis (chronic rheumatoid arthritis) occurring during infancy. Though Still's disease was of the nature of a multiple joint affection no changes in the bones or the cartilages were observed. The glands as well as the spleen underwent considerable enlargement. Some such cases were undoubtedly tuberculous. In this patient the disease began obscurely eight months previously in a febrile attack. Shortly afterwards it was noticed that the ankle-joints were enlarged and subsequently the knee-joints and then the wrists became affected. A soft doughy swelling affected the peri-articular tissues as well as the joints themselves in this patient. The supra-trochlear,

the axillary, and the inguinal glands were enlarged. In such cases there was considerable risk of death from intercurrent disease. The treatment consisted in keeping the patients warm and giving general tonics. Local treatment was inefficacious though care had to be taken to prevent any stiffness of joints remaining. The patients complained of remarkably little pain unless the joints were moved. There were, as a rule, marked muscular atrophy and anæmia.—Dr. T. M. Burn-Murdoch showed a girl, 21 months old, exhibiting a very unusual Affection of the Nervous System. The family history was unimportant; the labour was instrumental. At the age of seven months the child had suffered from inflammation of the lungs; the chest had then fallen in and the child became greatly emaciated. Later, complete recovery took place. When she was 19 months old a second attack of pneumonia ensued and she lost all power in the body. She had never spoken up to the present time. She had been unable to move the lower limbs, to sit up, or to hold up her head. The arms could be raised, however. Her general health was good and she had put on fat. Within the past two or three days a certain degree of power of moving the legs had returned. The chest was markedly compressed from before backwards and the child had absolutely no control over the muscles of the neck, the head wobbling about. The condition was probably an affection of the lower motor neurons, the anterior cornua of the cord being attacked. The case most nearly resembled certain examples described by Hoffman but in this case the affection was not congenital. The condition was probably due to a toxin affecting the nervous system, as occurred in certain of the exanthemata.—Dr. Burn-Murdoch also showed a pronounced case of Purpura occurring in a girl aged four years. In May, 1904, she was attacked with an acute and extreme anæmia. The temperature was elevated and she spat blood. A second attack occurred this spring and at present she showed a profound degree of anæmia, numerous ecchymoses, and purpuric spots. The characteristic smell was also present. Neither the spleen nor the liver was enlarged. At present the red cells numbered 1,100,000 and the white cells 3200 per cubic millimetre and the hæmoglobin was 20 per cent.—Mr. Harold J. Stiles showed three cases of Chronic Hydrocephalus to illustrate the effect of treatment by ligature of both common carotid arteries. He noted that previous attempts to cure this condition had been in his hands uniformly unsuccessful. The idea occurred to him to cut off the blood-supply to the cerebrum and so to lessen the secretion of cerebro-spinal fluid. There was no means of increasing the absorbing power and so treatment of the meningeal veins was unnecessary. The first patient was a twin child, five months old. The head was distinctly enlarged when the infant was three months old. When the operation was performed the greatest circumference of the head was 18½ inches. At that time the body was wasted, the sclerotic was showing above the cornea, and the veins of the head were greatly distended. The operation was performed 16 months ago and at present the child was plump, well nourished, and in excellent health. The mental condition was also good and the head had only increased one and a half inches in circumference since the operation. The anterior fontanelle still measured one and three quarters by two inches. In the second child enlargement of the cranium was noticed two weeks after birth. The operation was performed when the infant was nine weeks old. The child was now plump and happy and held the head up. At the operation the measurement of the head was 18 inches in circumference, while now it was 19½ inches. The third case was complicated with spina bifida. The latter was excised when the infant was a week old. Such cases of spina bifida frequently developed hydrocephalus. In this case it was a myelocystocele and the posterior part of the cord and canal being alone herniated no paralysis of the lower limbs had resulted. Not the same amount of improvement had taken place in regard to the hydrocephalus in this patient as in the preceding.—Mr. Stiles also showed a case illustrating some points in the Operative Treatment of Paralytic Obstruction following acute suppurative peritonitis. The patient was a girl, eight years old, who was admitted to hospital 48 hours after the first symptom of perforation of the appendix. Pus was found in the pelvis and in the lower segment of the abdomen. The abdominal cavity was not washed out but the pus was evacuated. All went well until the third day, when on opening up both wounds the small intestine was found greatly dilated and paralysed. It was stitched to the abdominal wall and incised. Rapid improvement then took place but a fistulous opening was left which had subsequently to be closed. A slight hernia remained.—Dr. E. W. Scott Carmichael exhibited a child who had suffered from a Tuberculous Abscess over the Frontal Bone. The disease implicated the bone and had penetrated to the dura mater. The bone was excised and the dura mater swabbed with phenol and excellent recovery had resulted.—Dr. Carmichael also showed a baby, ten weeks old, after excision of Spina Bifida. The infant was kept in the genu-pectoral position for a week subsequent to operation until the wound had healed.—Dr. W. B. Drummond showed an unusually early case of Interstitial Keratitis occurring in a boy, aged five years.

ULSTER MEDICAL SOCIETY.—A meeting of this society was held in the Medical Institute, Belfast, on May 4th, Dr. J. B. Moore being in the chair.—Mr. Robert Campbell read a paper on Surgical Cleanliness. He said that the common sources of wound contamination were (1) the patient's skin; (2) the instruments; (3) the swabs, sutures, and ligatures; and (4) the surgeon's hands. His experience was that if the patient's skin were well washed with soap and water, ether, alcohol, and perchloride or biniodide of mercury the night before operation, an aseptic dressing applied, and the same cleansing process repeated immediately before operation, no trouble from that source was to be anticipated. He had also found that emergency cases, such as strangulated hernia or intestinal obstruction, recovered perfectly, although in them there was no time for prolonged preparation. The instruments could be effectively sterilised by boiling for ten minutes. The swabs and the towels could be made equally safe by subjecting them to steam under pressure for 40 minutes. No entirely satisfactory buried suture or ligature had yet been discovered. Silk fulfilled the requirements more closely than most materials but had the drawback that it was non-absorbable and so was sometimes extruded from the body months after operation. Catgut in its crude state was septic and would not stand boiling in water. It could, however, be boiled in alcohol, xylol, or cumol, or it could be made so resisting by the action of formalin as not to be injured by boiling in water. Mr. Campbell had used formalin catgut for over six years and had found it satisfactory when gut of good quality was chosen and carefully prepared. He was in the habit of using Hartmann's catgut which was hardened by immersion for 48 hours in a solution of formalin of strength 1 in 10, washed under running water for 12 hours, then boiled in water for 30 or 40 minutes, and stored in absolute alcohol. It was boiled again for five minutes before use. There could be no doubt that the surgeon's hands were the chief source of the septic infection of wounds. By no known method of mechanical or chemical cleansing could the hands be made as safe as the instruments, the swabs, and the ligatures. About six years ago Mr. Campbell, in conjunction with Dr. J. Lynass, had done some culture-experiments in reference to the cleansing of hands. They found that prolonged washing with soap and water had a very marked effect in reducing the number of colonies and that further washing with turpentine, alcohol, and mercuric solutions had not as great an effect as they anticipated. Mr. Campbell soon afterwards adopted the use of cotton and silk gloves recommended by Mikulicz but discarded them after some months. He had, however, used indiarubber gloves for the past four years. He had found gloves of moderate thickness much better than thin ones. They fitted the hand more tightly, did not work loose at the tips of the fingers, and thus were not nearly so liable to be snipped by scissors or pricked with a needle. The objections made to rubber gloves were: (1) that they interfered with manipulative dexterity; (2) that they were liable to be pricked or torn and so to allow the accumulated secretions of the hands to escape; and (3) that they were expensive. As regards interference with manipulative dexterity this was mainly a matter of practice. After some experience the clumsiness disappeared and operations could be done as quickly and well as with the naked hand. When working with smooth organs, such as stomach and intestine, it was advisable to use gloves with a rough surface. The liability to be pricked or torn depended on the thickness of the gloves, the surgeon's familiarity with their use, and the method of putting them on. If the gloves were boiled and put on by immersing them in sterilised water it was difficult

to get all the water removed from the ends of the fingers and so they did not fit closely. The gloves should be cleansed, some powdered talc should be dusted into them, and then they should be sterilised in a steam steriliser. When taken out they were quite dry and slipped on easily. The talc also prevented accumulation of secretion in the fingers, so that if the glove should be accidentally pricked no fluid escaped. Of course, the hands were as carefully sterilised before putting on the gloves as if no gloves were used. In putting on the gloves the fingers should not be stroked with the naked hand, but a piece of sterilised gauze used for the purpose. As regards expense, a pair of gloves would last for several months. Mr. Campbell mentioned as other sources of contamination hairs and scales from the surgeon's and his assistants' heads and particles ejected from the mouth in speaking. Contamination in this way could be almost entirely avoided by taking care that the heads did not come in contact and that silence was preserved.—Dr. A. G. Robb then read a paper on Small-pox in Belfast, in which he gave a very full account of the recent epidemic in that city. Altogether there were 178 cases and nine deaths, giving a total death-rate of 5·05 per cent.

HARVEIAN SOCIETY OF LONDON.—A meeting of this society was held on May 11th, Mr. C. B. Lockwood, the President, being in the chair.—Dr. Hugh Walsham read a paper on the Use of Roentgen Rays in the Diagnosis of Diseases of the Chest, illustrating his remarks by 63 lantern pictures. He first pointed out that the airless and unexpanded lung was as opaque to the x rays as were the other soft tissues of the body. He then proceeded to discuss the methods of examining the chest with the rays and gave a short description of the retro-sternal and retro-cardiac triangles seen by this method. He next passed on to the shadows of the normal chest and showed how the heart differed in its position with relation to age. Aortic aneurysm, fluid in the pleura, pneumothorax, and pyopneumothorax were then successively considered. The diagnosis of pulmonary tuberculosis, both early and advanced, by the x rays was illustrated by slides of this condition. Cavitation was then alluded to, Dr. Walsham maintaining that a small cavity could be detected by the x rays that would be missed by the ordinary methods of examination. Pulmonary emphysema and fibroid phthisis were also shortly discussed.—Dr. C. Theodore Williams referred to the difficulty of determining between aneurysm and new growth and to the question of detecting early pulmonary tuberculosis.—Dr. E. Clifford Beale said that the movements of the diaphragm as seen with the screen were very important to note. The diaphragm as a rule appeared to move equally without any change of shape but in certain morbid conditions of one side the excursions of the diaphragm on that side were often found to be less than on the healthy side. He had never succeeded in seeing the action of the diaphragm in cases of hiccough. The aortic bulging seen by the screen was always noted to be freely pulsating and might not of necessity be a morbid condition at all. In a suspected case of early tuberculous disease of the lung he had seen by the screen that the bony framework of the chest was exceedingly narrow, although the patient had broad and well-developed shoulders, and in several of the slides shown that evening he had been struck by the manner in which the contraction of the upper part of the chest in tuberculous patients was demonstrated in cases where external appearances indicated no such contraction.—Dr. D. B. Lees asked whether radiographers claimed to be able to demonstrate the presence of disease at the apex of one lung in a very early stage. So far as he had seen radiography was unable to prove incipient apical tuberculosis until its presence was clearly demonstrable by careful light percussion. He concluded by referring to the case of an infant ten months old in which the diagnosis of the existence of a diaphragmatic hernia was confirmed by an x ray examination.—Mr. R. Higham Cooper agreed that limitation of diaphragmatic movement was the earliest radioscopic sign in tuberculosis and had found this in several cases in which the physician had failed to make a diagnosis by ordinary methods; at the same time it sometimes happened that there was no x ray evidence to be found even when diagnosis was fairly clear by percussion and auscultation. It had once happened that a girl about 15 years of age whom he was examining with the fluorescent screen had an attack of hiccough. His attention was called to the hiccoughs by observing a curious sudden flattening of the dome of the diaphragm on the left side which he found occurred with each hiccough. It was curious that there was no alteration on the right side. There was no visceral disease, the girl being under examination for supposed foreign body. He had never observed radioscopically another case of hiccough.—Dr. H. W. G. Mackenzie said that he had at present a patient in St. Thomas's Hospital suffering from a large aneurysm of the arch of the aorta in whom in 1898—i.e., seven years ago—the diagnosis of aneurysm had been made by means of the x rays. He formerly thought that the diagnosis of aneurysm was too frequently and too readily made on screen examination but subsequent history had so often confirmed the correctness of the diagnosis that he now believed the x rays to be of great value in doubtful cases. Where the ordinary physical organs did not give evidence of tubercle his experience had been that the x rays failed to do so also.

SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN.—A meeting of this society was held on May 5th, Dr. George Carpenter being in the chair.—Mr. Sydney Stephenson showed a girl, aged four years, with Silver Deposit on the Cornea due to the application of solid nitrate of silver to an ulcer.—Dr. F. J. Poynton showed five children illustrating Combined Aortic and Mitral Disease. In one with a double mitral murmur a previously well-marked aortic diastolic murmur had completely disappeared. In another the aortic murmur had almost disappeared.—Dr. Theodore Fisher (Bristol) said that in his opinion harsh murmurs ascribed to aortic disease were sometimes due to other causes.—Mr. George Pernet showed a boy, aged eight years, with Generalised Alopecia.—Mr. Ernest Clarke said that he knew of a case in which high-frequency currents had proved beneficial.—Mr. Clarke showed a child with Bilateral Coloboma of the Iris, in the down and out instead of the usual directly downward position. There was no notch in the lens or the lids. Nystagmus was present, probably due to a very thin choroid and great refractive defect. He attributed the condition to intra-uterine inflammation rather than to arrested development in the closure of the fissure.—Dr. Edmund Cautley showed a child, aged 12 months, with Bilateral Periostitis of the Femur. The child had been brought up on a diet conducive to scurvy. She came under notice at ten months of age for swelling of the right knee and thigh of one month's duration and a similar condition of the left side for two weeks. She was anæmic, rachitic, wasted, feverish, and had two teeth but no discolouration of the gums. There were much swelling, pain, and tenderness. The right side diminished but at first the left leg became worse. An exploratory incision above the knee yielded no pus. The temperature subsided in a few days and recovery was steady and uneventful; the child gained 26 ounces in weight in four weeks. There was still considerable thickening of the lower half of each femur. He regarded the case as syphilitic on account of the symmetry, the course, the result of the exploratory incision, and the absence of signs of scurvy. There was almost certainly some epiphysitis as well. The mother had had one miscarriage.—Dr. F. Parkes Weber showed a girl, aged 11 years, with Wasting of the Left Leg and Right Hand and Forearm, beginning insidiously a year ago. Sensation and electrical response were deficient in the affected parts and there was reaction of degeneration in the muscles of the thenar eminence. He regarded the condition as a dystrophy of the peroneal type. There was no family history of the disease.—Dr. Cautley agreed that it was a form of peroneal atrophy and drew attention to the "claw-like" condition of the hand, the wasting of the vastus internus, and the presence of pes cavus. He had shown a case before the society three years ago which had begun at the exceptionally early age of 18 months. As in the case of Dr. Weber's patient there was no family history but the child had had measles. He thought that the sporadic cases were perhaps different in their pathology from the hereditary ones and often secondary to specific fevers.—Dr. Carpenter showed cases of Congenital Deformity of the Hands in several members of the same family, chiefly absence of the nails and the terminal phalanges of the little fingers. Two children, their mother, an aunt, an uncle, and some of his children were affected. The mother's father had two thumbs on each hand and his brother had webbed fingers.—Dr. Carpenter and Mr. J. P. Lockhart Mummery showed a specimen of Congenital

Hypertrophic Stenosis of the Pylorus treated by pyloroplasty. The patient, who was an infant, aged three months, died on the morning following the operation.—Dr. L. W. Marshall (Nottingham) showed a specimen of Multiple Papillomata of the Larynx from a boy, aged four years.—Dr. J. Porter Parkinson showed a girl, aged seven years, with Multiple Gummata and a baby four months old with Bilateral Birth Palsy of the Arms.—Mr. Hunter F. Tod showed a case of Primary Tuberculous Disease of the Middle Ear with secondary involvement of the cervical glands.

EDINBURGH OBSTETRICAL SOCIETY.—A meeting of this society was held on May 17th, Dr. N. T. Brewis, the President, occupying the chair.—Sir J. Halliday Croom read a paper on Some Curiosities of Curetting. After discussing in detail some of the many theories of the primary etiology of cancer Sir Halliday Croom laid special emphasis on the extreme value of early diagnosis in malignant cases. The only comparatively certain aid to this early diagnosis of cancer was got from the microscopic examination of the débris removed by the curette. A soft friable enlargement or growth of the cervix bleeding readily on examination was not sufficient to diagnose cancer. He knew of such cases which were now quite well years after the examination. In sending specimens to a microscopist a sufficient amount should always be forwarded and always be accompanied with a short account of the clinical facts. Even in cases where this rule had been observed errors might arise, as Sir Halliday Croom illustrated by some cases in which the clinical after-history seemed to refute the diagnosis made by the microscopist. Though such cases were disappointing, they only went to confirm still more, in his opinion, the necessity of basing all diagnosis on the facts obtained both clinically and microscopically. As to the accidents which might follow curetting, Sir Halliday Croom cited a case in which stenosis of the os and retention of the menses for two periods, simulating pregnancy, had occurred in a young married woman whom he had curetted after an incomplete abortion. An illustration of perforation of the fundus by the curette was given in the history of a case where in curetting after an abortion the practitioner had perforated the fundus. When seen in consultation there was a loop of intestine prolapsed in the vagina. Though such cases are rare in this country many cases have been recorded, as Harvey's case quoted by Kelly in which six feet of intestine was cut off. In Hessert's case the bowel was injured during curettage to such an extent that resection of four feet was performed with a fatal result. The safest instrument was the finger for removing tissue after an abortion or labour. Two cases were related showing the disappointments of curettage, in which Sir Halliday Croom had operated for endometritis in the hope of rendering pregnancy more probable, but in each case the results were opposite to those desired, as the patients never menstruated again and atrophic changes supervened.—Dr. James Ritchie, Dr. F. W. N. Haultain, Dr. J. W. Ballantyne, Dr. H. M. Church, Dr. J. Haig Ferguson, Dr. M. Dewar, Dr. W. Fordyce, Dr. J. Lamond Lackie, and the President made remarks on the paper, and Sir Halliday Croom replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.—A meeting of this society was held on May 10th, Dr. A. Donald, the President, being in the chair.—Sir William J. Sinclair read a communication on the Association of Flexion of the Uterus with Erosion and Cancer.—The President showed a Macerated Fœtus which had been retained in the abdomen for nearly four years. The case was diagnosed as one of extra-uterine pregnancy with death of the fœtus in September, 1901. Operation was not advised at that time. Since then the patient became pregnant three times. The first of these pregnancies terminated in abortion; the second went on to term and the child was born alive. The first four months of the next pregnancy were uneventful; then she began to have severe abdominal pain and the temperature and pulse ran up. Abdominal section was performed and the macerated fœtus was removed. The patient made a good recovery but miscarried on the tenth day. The macerated fœtus lay in a sac which on dissection was found to be one horn of a bicornate uterus. The sac was inflamed and adherent to bowel and omentum at one point.—Mr. W. P. Montgomery showed an Embryoma removed from the rectum.—Mr. C. Roberts showed and described a Retro-peritoneal Multilocular Cyst Adenoma.—Other preparations were exhibited as Card Specimens.

Reviews and Notices of Books.

A Modern Utopia. By H. G. WELLS. In one volume. London: Chapman and Hall, Limited. 1905. Price 7*s.* 6*d.*

Mr. Wells has written a fascinating book. It is clever, almost uncannily clever, so beautifully written that the learning of the many and valuable lessons which the author has to teach becomes a veritable pleasure, and so suggestive that the reviewer has difficulty in keeping what he has to say strictly to the book, the temptation to digress upon a dozen contentious themes being of the strongest. Mr. Wells's "A Modern Utopia" differs from previous attempts to formulate an ideal world-scheme by being kinetic and not static, to borrow his own phrase. Previous Utopias have all imagined a finite and perfect condition of things which, being reached, no one would or could desire to improve upon. All abuses in these imaginary realms are done away with; legislation becomes unnecessary because there is neither crime nor incentive to crime; kings are unnecessary because complete order prevails among the people; and wars are unnecessary because there are no national grievances. Previous Utopias have, in short, amounted to the description of a sort of splendid and stagnant anarchy in which laws, physical and moral, are suspended, there being no further use for them. Mr. Wells's Utopia is alive, his world-state has developed out of existent conditions that we can all observe (the majority of us do not observe them at all because the majority of us are shamefully dull), and it should continue to develop on the lines laid down into something better. No limit can be set to the possible improvements of a Utopia of the kinetic sort, because as man puts behind him more and more solid knowledge his possible grip of what lies before him becomes more and more comprehensive. The acquisition of learning by the world implies a fitness to acquire more learning and Mr. Wells's fantasy, founded on this truism, gains its marked realism thereby.

In previous Utopias no notice has ever been taken of the possibilities for development of the human race that are offered by the increased use of mechanical contrivances and it is because Mr. Wells does not admit of any limit to the advantages that we may derive from future discovery in natural science—using the words natural science in their most comprehensive sense—that he has been able to write so extremely hopeful a book. For Mr. Wells's belief in the possibilities of our world—or another world physically similar to ours, inhabited by persons of like frailties and capacities to ourselves—is gloriously hopeful. Previous Utopias have always considered man as a rather degenerate animal, more or less anchored to the place where he was born and condemned to protect himself by his own puny muscular effort against the troubles of his environment. For such people the simplest method of framing a scheme for ideal happiness would be to remove the chances of physical ill, both from within and from without—Utopians should be a chosen people protected elaborately from all stress and misery. The Utopia was consequently a carefully selected spot, a fertile and unknown valley or a settlement surrounded by an impregnable rampart. Here wild beasts, noxious insects, storms and tempests were unknown, and into this place non-Utopian persons could not penetrate. Within such a city of refuge, by the operation of a conjoint determination not to be criminal or dirty, ideal happiness should reign. This was all very well when for example, ten miles an hour was considered quick travelling and artillery had not made walls appear ridiculous for defensive purposes, but nowadays such a secluded retreat

cannot be made to appear real or reasonable. All the world is nowadays open to all the world—with considerable difficulties, it is true, to be overcome. These difficulties in real life are being gradually removed, while Mr. Wells in his romance has simply and completely removed them. His Utopia is a planet similar to the earth in every respect upon which a population, which started similar in every respect to our own, has undergone development along sane and orderly lines, has placed a premium upon scientific and imaginative work, and has consequently succeeded to an empire over physical and natural potentialities which we on earth are without.

Throughout the book Mr. Wells makes the sanguine and, as we like to think it, sound assumption that man is a good fellow of generous instincts, capable of better things, and sorely hampered and overladen by the foolishness of bygone times. He imagines a condition of things when a train, itself a sort of moving city, would run round a world of our size in about ten days at an average speed of something over 200 miles an hour, tunnels, of course, being constructed in many places under the sea. Naturally, the necessity for little states and, comparatively speaking, little empires disappears. The whole population of the world is fluid instead of being so many sticky lumps adherent to certain localities. The inhabitants of Mr. Wells's world-state all talk the same language, there are no tariffs, no rivalries, no obstructions whatever to intercommunication; labour flows from the region where it is not wanted to the region where it is wanted, the State stands behind the worker to provide him with secure employment, and the splendid economy which results from a fusion of interests working according to design is achieved. All this the author pictures in such convincing language that we are almost compelled to ask why we cannot at once drop the existing condition of things and run our world on Mr. Wells's plan. It is of course his art that makes this proceeding appear really possible, for he points out carefully that the position in "A Modern Utopia" has only been achieved after generations of intelligent evolution. But his optimism has been able to believe that man, if he gave proper play to his instincts and impulses, would abolish by common consent many of the disorderly and vexatious conditions of life that find their ultimate expression in wars by land and sea, in deaths from starvation or hideous preventable disease, in divorce court revelations,—and so on. How this reformation of our sinful and ataxic old planet might be brought about and what the results would be to different classes of the population make up the bulk of the book.

How would such a world be ruled? Mr. Wells would have it ruled by a class which, out of compliment to the Japanese, he names the Samurai, who shall be the "voluntary nobility" of the world-state, their election being due simply to their own self-mastery and ability. The Samurai are a class who deny themselves certain luxuries and who show themselves to possess certain intellectual equipment. They are neither ascetics nor fanatics; they exhibit their powers of self-control by abstinence from sensual and frivolous pleasure, but there is none of the foolish abjurations which in the world's history have often made "holy man" and "silly ass" interchangeable terms. In return for their reasonable self-denial and their fixed resolve to attain to higher things and to look on the nobler side of life the temporal power of Utopia is vested in them. The children of such persons, being educated in the same atmosphere, would naturally tend to belong to the Samurai class, but there is nothing hereditary about the caste, Mr. Wells holding, in refreshing contradistinction both to reckless evolutionists and convinced reactionaries, that the operations of heredity are of too uncertain and complicated a kind to be depended upon for the breeding of a ruling class. Medical men are placed by Mr. Wells among the Samurai as a tribute to the nature of their work. Their functions are, of course, in his imaginary world-state, largely preventive. The abolition of poverty and haunting anxiety has removed enormous classes of diseases or complications of disease. General and sensible education has aided in simplifying pathology. A common language and free intercourse between all parts of the world have enabled epidemiology to stamp out the scourges that now decimate many peoples; and the medical man remains as the guardian of the health of the world-state, as adviser of the sanitary measures to be taken in the future developments of an immense community that is resolved never to be standing still, and as the wise and reasonable friend of a wise and reasonable folk.

We cordially recommend "A Modern Utopia" to all our readers. It is not quite an easy book to follow for several reasons, among which must be counted the absence of didacticism. This makes it necessary for the reader to do some of the thinking instead of contenting himself with assenting to or dissenting from cock-sure statements. Well, the book is thoroughly worth thinking about.

The Treatment of Diseases of the Eye. By Dr. VICTOR HANKE, First Assistant in the University Eye Clinic of Hofrath Professor E. Fuchs in Vienna. Translated by J. HERBERT PARSONS, B.S. Lond., F.R.C.S. Eng., and GEORGE COATS, M.D. Glasg., F.R.C.S. Eng. London: Hodder and Stoughton. 1905. Pp. 222. Price 3*s.* 6*d.* net.

WE are somewhat at a loss to understand why Mr. Parsons and Dr. Coats have translated this work. Not that we mean to disparage it, as the author might reasonably consider that it would be useful to those attending his demonstrations and would be a guide and a help to those who were students in Professor Fuchs's wards. It is a very fair *résumé* of the means of diagnosis and treatment ordinarily pursued in an ophthalmic hospital, putting aside operative proceedings and taking for granted that the student is familiar with optics, subjects that usually occupy considerable space in works of this kind. But when this has been said we fail to see that it offers any marked features of superiority to such treatises as those of Swanzy, Nettleship, and Jessop in England and several that have been published in America. The reader will find the names of a considerable number of new remedies, such as airol, dionin, largin, sodium sozoiodol, argentamin, ichthargan, xeroform, iodopin, europhen, gallicin, itrol, hetol, and others, but they are not very warmly recommended. Experience is required to recognise in what particular form of disease each may be useful and in the meantime delay may be occasioned by their procurement and application, thus neutralising any advantage they may possess over such well-approved remedies as alum, silver nitrate, and cocaine. In like manner the suggestions for establishing the diagnosis of certain forms of disease are not always given in such a way as to create much confidence; let us take, for example, diphtheria of the conjunctiva. The author states that the diagnosis of this condition is necessary but extremely difficult "since only a complete bacteriological examination with smears, cultures, and animal inoculations gives a conclusive result." The discovery of diphtheria antitoxic serum facilitated the differential diagnosis, though it is added "only true diphtheritic inflammations, though not all such, are cured speedily and with certainty." The parenthetic remark "though not all such" seems to introduce an element of uncertainty which is not very satisfactory either to the surgeon or to the patient. We are told that as soon as a membranous or a diphtheritic inflammation is perceived a bacteriological examination should be undertaken, an exact clinical history should be ascertained, and examination should be made of the genitals, the nose, the mouth, and the throat; but here again doubts, after taking all this trouble, obtrude themselves, for it is said in the very next

sentence that "the presence of rods like the diphtheria bacillus is not diagnostic, since the xerosis or pseudo-diphtheria bacillus behaves similarly both to stains and in cultures and can only be distinguished by its virulence in animals." It seems that this proceeding might be resorted to in the first instance with advantage in the matter of time. In a final sentence the author states not very clearly that "the absence of bacilli, however, and the presence of cocci—pneumo-, gono-, staphylo cocci—decide the diagnosis and the treatment to be chosen." For injections may be employed the three strengths of Behring's serum, the Vienna serum, or Merck's serum, containing from 600 to 1000 units in two cubic centimetres, either of which may be injected into the skin of the eyelid even of a child without danger. The injections are to be repeated daily in the same quantity and strength as long as membranes and infiltrates are still visible. It is noticeable that corneal complications are not influenced to any great extent by the serum therapy but must be treated according to the ordinary rules—namely, warm compresses of atropin. No reference is made to chlorine water which was at one time strongly recommended in diphtheritic affections of the eye. The cleansing of the conjunctival sac is ordered to be effected by a solution of 1 in 5000 of potassium permanganate, Kalt's irrigation with 1 in 4000 hydrargyri perchloride or chinosol, 2 to 10 per cent. protargol, and 10 per cent. itrol. Protective dressing should be applied to the sound eye if only one be affected. The work, as a whole, is sensibly written and is well up to date.

Atlas of Human Anatomy. By WERNER SPALTEHOLZ, Extraordinary Professor of Anatomy in the University and Custodian of the Anatomical Museum at Leipsic. Edited and translated from the Third German Edition by LEWELLYS F. BARKER, M.B. Toronto, Professor of Anatomy, University of Chicago. With a Preface by FRANKLIN P. MALL, Professor of Anatomy in the Johns Hopkins University, Baltimore. In three vols. With 935 illustrations, mostly in colours. London and Philadelphia: J. B. Lippincott Company. Small quarto, pp. 872. Cloth, £2 2*s.* net per set.

THERE is no doubt that an atlas such as this is a considerable assistance to the student of anatomy if it is used with proper discretion, but the ever present danger, which is fully recognised by all teachers of the subject, is that the presence of these pictorial aids breeds a neglect of dissection and dissecting-room study. We confess that we experience a feeling of regret when we see anatomical atlases in the hands of students in their earlier years, knowing by experience what to expect. To the more advanced student and those who have quitted the dissecting room these remarks are not intended to apply. Anatomy is a subject which, if the knowledge is to persist and to lead to practical results in the advance of medicine and surgery, must be learned directly from the body, and no models or atlases, however excellent they may be, can replace actual dissection.

As a work of art the atlas of Professor Spalteholz is deserving of very great praise and the amount of labour entailed in its production can be gauged when we learn that eight years of necessity elapsed between the issue of the first and the third or final section of the book. Practically all the drawings are from original preparations but at the same time are, so to speak, composite, the mean arrangement of structures being depicted. In all cases the right side of the body has been selected for illustration. We understand that most of the dissections were prepared by Professor Spalteholz himself. The original drawings are mainly from the hand of a well-known anatomical artist—Bruno Héroux.

The first volume, which is somewhat slender and consists of 236 pages, is entirely devoted to illustrations of the bones, the joints, and the ligaments. The illustrations of these structures do not appreciably differ from those with which English students are familiar and really convey an excellent idea of the actual structure. The plan of depicting the smaller bones of the skull surrounded by outline drawings of bones with which they articulate is excellent. Muscular attachments are marked in red outlines after the style made familiar to us by Holden and probably originated by Mr. Cornelius Hanbury. It is most unfortunate that in printing the muscular attachments on the fibula the "register" is displaced; this will inevitably lead to great confusion. Several plates to illustrate the arrangement of the cancellous tissue in the various bones have been introduced at the end of this volume.

The second volume, consisting of 239 pages, deals with regions, muscles, fasciæ, heart, and blood-vessels. Illustrations from all points of view have been introduced. The author apologises for the somewhat rigid appearance of the muscles which have been drawn from formalin specimens. The colour used for these structures is certainly an improvement on that in some atlases with which we are acquainted, but, nevertheless, it is still unnatural. The bursal sheaths of the different tendons of the hand and the foot are well brought out but the tendinous attachments of some of the spinal muscles are very indistinct. The heart and the blood-vessels are well represented but we notice discrepancies in the mode in which the origin of the subclavian trunk from the innominate stem is depicted in the different figures. It is a pity, too, that the various sacral nerve trunks are not named in the plate depicting the arteries of the pelvis. The author has, from pressure of time, been compelled to omit all illustrations of the lymphatics, which we consider a great defect.

The third volume is about equal in size to the other two combined. This important section illustrates the viscera, the brain, the nerves, and the sense organs. We do not consider the illustrations and the descriptions of the viscera superior, or, indeed, equal, to those which have recently emanated from English anatomists. The section on the nervous system is the best part of the whole atlas. The author has been fortunate in obtaining the assistance of Professor Flechsig Professor His, and Professor Eisler, from whose preparations some of the drawings have been made, whilst others are from specimens of Dr. Held. Colour printing has been resorted to freely to distinguish various tracts. We have found it difficult to distinguish some of the tints used when reading by artificial light although they are easily recognised by daylight.

Professor Barker of the University of Chicago is responsible for the English translation and has performed his task in a most satisfactory manner.

LIBRARY TABLE.

Essentials of Nervous Diseases and Insanity. By JOHN C. SHAW, M.D. Fourth edition, revised by SMITH ELY JELLIFFE, M.D., Ph.D. Illustrated. London: H. Kimpton. 1904. Pp. 196. Price 4*s.* net.—This little work is intended as an introduction to larger books and has evidently supplied a demand, at any rate in the United States, since the present is the fourth edition. In works of this kind the aim must be to compress into a limited space the essentials of what is usually an extensive subject and the results achieved often leave much to be desired. In the present instance it is expected that the student should read in conjunction with this volume Edinger's lectures on the Structure of the Central Nervous System and a monograph by W. Browning on the Vessels of the Brain in order to gain anatomical and physiological information which the limits of the present work made it impossible to include. The contents of the book are divided into seven sections, dealing respectively with the neuroses (functional disorders), with diseases of the peripheral nervous system, of the spinal cord and

medulla, of the cerebral and spinal meninges, of the brain, with certain trophic diseases, and with mental diseases. The chapters under these sections cover the diseases of the nervous system and mind which are commonly met with. Summary descriptions of the essential features of these are of course all that can be expected and they are given, as far as possible, under the headings of etiology, pathology, pathological anatomy, symptoms, diagnosis, prognosis, and treatment. References are given to writings on the subject-matter of the more important chapters at the close of these and at the end of the work is a list of the chief periodicals which are devoted to the study of nervous and mental diseases in different languages. We observe that the subject of aphasia is treated under five headings, one of which is "true or intellectual aphasia," which does not appear to be a condition capable of separation from "motor," "sensory," or "associative" aphasia, as is here attempted. Amongst the insanities is a state described as "hysterical insanity," which is not, we believe, usually regarded as an entity and could not, we think, be distinguished as such from the description given. It is well known, of course, that hysterical symptoms are exhibited in some cases of mania. The description of the insanities due to alcohol leaves something to be desired. Adverse criticisms might in like manner be here and there advanced but on the whole the information which the book affords is as full as its purpose requires and it is also correct. The value of the work would be enhanced without appreciable addition to its size by including a chapter on methods of clinical examination in diseases of the nervous system. The text is elucidated by numerous illustrations.

Surface Anatomy. By T. GILLMAN MOORHEAD, M.D. Dub., M.R.C.P. Irel., Physician to the Royal City of Dublin Hospital; late Chief Demonstrator of Anatomy and Joint Lecturer in Applied Anatomy, Trinity College, Dublin. London: Baillière, Tindall, and Cox. 1905. Crown 8vo, pp. 150. Price 4*s.* 6*d.* net.—Quite a number of manuals of surface anatomy have been published during the last 12 months. Several of these have already been noticed in our columns. The volume now before us differs in no appreciable degree from its predecessors and possesses no feature of novelty. The book is arranged on the usual lines and the information given is accurate and fairly concise. Photographs from the model are reproduced to illustrate the surface markings of the body and several coloured outline diagrams show the relations of the thoracic and abdominal viscera to superficial bony points. We think that these diagrams might be considerably improved upon with advantage. With two remarks made by the author in his preface we cordially agree: the first is to the effect that the best model the student can employ is himself, and the second is that a knowledge of deep anatomy is essential before the facts of surface anatomy can be appreciated. We may further add that until the practical bearings of the facts given in books on surface anatomy are also appreciated the books form very dull reading.

Chemistry in Daily Life. By Dr. LASSAR-COHN. Translated by M. M. PATTISON MUIR, M.A. Third edition. London: H. Gravel and Co. 1905. Pp. 340. Price 5*s.*—We are glad to find that this little book is so widely appreciated, as is evident from the fact that a third edition, revised and augmented, has been called for. It is charmingly written and deals with those chemical phenomena which, as the translator says, are intimately bound up with our daily lives and after all it would be difficult to find many chemical phenomena which are not intimately bound up with our lives. Popular ideas as to what chemistry is are somewhat vague, the word chemical being often employed in a contemptuous sense, meaning disagreeable or poisonous substances, and the man dealing with them is often looked upon as a mysterious, if not an offensive, person. Yet after all water, air, chalk, ink, soda-water, alum, glass, and other familiar things are chemicals. Considering the size of the volume it is wonderful how the author has been able to include so many topics. He has done it with skill and the translator has rendered the story in simple and attractive terms. It is the sort of book that should be in the hands of every schoolboy and it would be saying little for his intellectual capacity if he failed to read the chapters with profit and pleasure.

The Food Inspector's Handbook. By FRANCIS VACHER, F.R.C.S. Edin., Medical Officer of Health of Cheshire. Fourth edition. Illustrated. London: The Sanitary Publishing Company. 1905. Pp. 231. Price 3*s.* 6*d.*—This little book is primarily intended as a guide for the use of food inspectors and that it has served its purpose satisfactorily is indicated by the fact that three editions have been issued since the publication of the first edition in 1892. It contains in a collective form the kind of information which is necessarily scattered otherwise over a number of works on special subjects. Thus besides the adulteration of food there are chapters on animals, carcasses, butchers' meat, poultry, game, fish, fruit, and vegetables, with a description of the appearance and the character of foods which warrant their condemnation as unfit for consumption or their approval as the case may be. Illustrations are given which are calculated to be helpful in the task of diagnosis. The chapters will be appreciated by all those occupying the important office of food inspector.

The Medical Annual: A Year-book of Treatment and Practitioner's Index. 1905. Twenty-third year. Bristol: John Wright and Co. Pp. 843. Price 7*s.* 6*d.* net. Stereoscopes 2*s.* or 2*s.* 6*d.* extra.—In this the twenty-third year of the "Medical Annual" it has been found necessary to bow to the inevitable and to adopt a larger page in order that height and width should be more proportionate. This volume therefore commences a new series which will differ only from its predecessors in requiring more room on the bookshelf. The change has been rendered necessary by the advance made in medical science. On the subjects of tropical diseases alone quite a number of affections are described which receive no mention in the latest text-books. The editor tells us that every paragraph "may be taken as something which has been left, after a repeated process of pruning," and every article is signed by a responsible editor capable of forming a valuable opinion upon the facts recorded. A selection of stereograms illustrating some diseases of the eye are included in the volume. These plates are reproduced from the stereograms in Neisser's "Stereoskopischer Medizinischer Atlas," edited by Dr. W. Uhthoff of Breslau. The letterpress accompanying them is a free and abridged translation of the German text by Dr. A. Hugh Thompson. For readers who have no suitable stereoscope the publishers provide a simple but effective instrument; directions for its use are given. The new volume is a worthy member of its series and is produced on the lines which have made the Annual so successful in the past. It is primarily intended as a work for rapid reference. We notice that in the official directory the name of Sir Henry F. Norbury is still given as that of the Director General of the Royal Navy Medical Department. The book is illustrated with 30 plates and many diagrams. There is a good general index.

JOURNALS AND MAGAZINES.

Archives of the Röntgen Ray.—In the issue for April is an interesting contribution by Mr. Robert Jones and Dr. David Morgan on Osseous Formations in Muscles due to Injury. The subject is treated very completely and the salient points, including radiographic appearances of 17 cases, are set forth

in tabular form, and radiographs of several of the more interesting cases are reproduced. The article on the Treatment of Epilepsy by the X Rays, by Dr. Horace Manders, is also worthy of perusal. Full notes are given of a rather severe case treated by him and the result up to the time of writing had been most satisfactory. Dr. W. F. Somerville of Glasgow reports a case of severe hysteria successfully treated by high-frequency currents. The case was one of several years' duration and the symptoms were such that on one occasion the abdomen was opened by a surgeon with every reason for expecting to find a perforating ulcer of the stomach. Eventually electrical treatment was resorted to with the happiest results. Mr. T. J. Bokenham contributes a paper on the Position of Oscillatory Currents in Therapeutics and raises some very important considerations which many who practise high-frequency treatment would do well to take seriously to heart. The "Archives" does not confine itself to Röntgen Rays, and accordingly Dr. D. Chalmers Watson of Edinburgh records some important experiments made to show the influence of diet on the structure and the functions of the thyroid gland. Meat diet is the one particularly referred to and some interesting conclusions are drawn. From 1875 to 1899 the importation of meat into the country rose from 18 pounds to 45 pounds per head per annum and also there was an increase of 24 per cent. in the amount of land under pasture during this period. Concurrently thyroid medication has been found useful in a number of conditions which have no known relationship to the thyroid gland. His explanation is that "as a result of an excessive meat dietary there has been established, and is being established, in many subjects an alteration in the character of the thyroid secretion. When this alteration takes the form of a simple deficiency of the thyroid secretion the defect can be remedied by administration of thyroid gland." The paper may be compared with one by the same writer, which appeared in THE LANCET of Feb. 11th, 1905, p. 347.

The Archives of Physiological Therapy. Edited by CLARENCE EDWARD SKINNER, M.D. New Haven, Conn. Boston, U.S.A.: The Gorham Press, Richard G. Badger. Subscription $3.00 (12*s.*) per year.—This is a new journal "devoted to the diagnostic and therapeutic uses of electricity, radiant energy, heat, water, mechanical vibration, &c.," which it is intended to publish monthly. In conjunction with the editor are some 20 others more or less well known in the medical and scientific worlds. All the original articles in this first number consist of papers read at St. Louis in September of last year when meetings were held at about the same time by the electro-therapeutic section of the International Electrical Congress, the American Electro-Therapeutic Association, and the American Röntgen Ray Society. Dr. Maurice Benedikt of Vienna supplies a contribution to the Radio-Diagnosis of Diseases of the Head and Brain. The author has evidently directed no little time and study to this highly specialised branch of x ray diagnosis and his paper will be found of great interest by x ray workers and others. Dr. W. J. Herdman offers some novel suggestions for the treatment of Dupuytren's and allied contractions by a modified form of electrolysis. Other papers by Dr. W. H. White on the Action of High-frequency Currents and Dr. J. H. Kellogg on Phototherapy in Chronic Diseases, &c., assist in making up a very interesting number. The second, and greater, half consists of a very complete set of reviews and abstracts of all the current literature bearing on the subjects comprised within its scope. This is a very valuable feature and if continued in the same thorough manner will do much to bring about the ultimate success of the undertaking. Good paper and clear type are used, while the illustrations are all that could be desired. This new journal has our good wishes for a prosperous and useful career which would seem already to be assured.

Ophthalmology. Vol. I., No. 3. April, 1905. Milwaukee, Wis.: H. V. Würdemann, M.D., and Nelson Miles Black, M.D. Pp. 209. A Quarterly Journal. Price per number $1.50 (6*s.*); per year, $5.00 (£1 1*s.*).—This journal is stated to be published as the result of the expressed wish of English-speaking ophthalmologists for a quarterly journal which would be printed without the intervention of a non-medical publisher whose interests must necessarily lie in pecuniary profit rather than in the advancement of medical science. *Ophthalmology* is owned, edited, and published by the medical profession. It contains original articles, abstracts from English and foreign works, and reviews. It has many distinguished names on its editorial staff. The present number contains the following original articles. 1. Epithelioma of the Eyelid removed by Dissection and X Ray Treatment, by Walter Hamilton Snyder, M.D. Toledo, Ohio. A coloured plate is appended to this communication showing a ragged tuberculated growth on the lower eyelid near the outer canthus. Eight applications of the x rays were made, after removal with the knife, for ten minutes at a time, at a distance of seven inches with a soft tube, between June 10th and July 28th, with excellent results. 2. On Peritomy for Diffuse Corneitis and other Affections of the Cornea, by Simeon Snell, F.R.C.S. Edin., of Sheffield. Mr. Simeon Snell has practised peritomy in 200 cases of various forms of keratitis with much success. 3. Sarcoma of the Orbit with Report of Four Cases, by E. Oliver Belt, M.D., Washington, D.C. 4. Elephantiasis of the Upper Eyelid, by H. Harlan, M.D., and R. H. Johnston, M.D., of Baltimore. The text contains a drawing of a case and of the microscopic appearances presented by sections of the swelling. 5. The Question of Iridectomy in Glaucoma Simplex, by Frederick E. Cheney, M.D., of Boston. The author thinks that theoretically it is advisable, especially at middle age and in patients with a melancholic disposition. 6. Intraocular Tuberculosis, with the report of Two Cases, by William Campbell Posey, M.D., of Philadelphia, with four figures in the text. 7. Some Remarks on Molluscum Contagiosum, by Dr. E. H. Oppenheimer of Berlin, with a figure in the text. 8. The Treatment of Pyogenic Infection of the Eyeball, by A. Maitland Ramsay, M.D. Glasg., of Glasgow. Dr. Ramsay recommends argyrol and collargol. There are numerous abstracts from contemporary literature in different countries.

Dublin Journal of Medical Science.—The May number is chiefly devoted to surgical topics. Dr. Henry Fitzgibbon speaks favourably of the treatment of syphilis by intramuscular injections of mercury and gives a formula for such use in which the metal is incorporated in a basis of lanolin and parolein. Dr. Charles Greene Cumston deals with suprapubic cystotomy in children and points out the special facility of the operation when performed at an early age. Mr. William Taylor records the notes of a case of gangrenous traumatic hernia successfully treated by resection of the necrotic portion of the bowel and Dr. James Craig narrates the sequel of a case of cured aneurysm of the innominate artery, the patient subsequently dying from rupture of a second aneurysm, affecting the aortic arch, into the œsophagus.

Scottish Medical and Surgical Journal.—The articles in the May number of this journal are of more than average interest. Dr. Horace C. Colman deals with the treatment of hæmoptysis and menorrhagia by inhalation of amyl nitrite and quotes some good results. The method is eminently scientific as it aims at diminishing the blood pressure at the bleeding point and thus imitating nature's mode of arrest of hæmorrhage by syncope. It is the exact contrary of the old irrational treatment of pulmonary hæmorrhage by ergot. Mr. Malcolm Campbell makes some

interesting suggestions as to the connexion between ovarian disease and uterine fibroids, and Dr. R. Cranston Low contributes a useful paper upon the Employment of Tuberculin as a Means of Diagnosis; after a period of exaggerated fear to use this test there are now signs that it is coming once more into favour. Some notes on treatment with tuberculin are also given in this paper.

Edinburgh Medical Journal.—The May number of this journal contains the fourth Morison lecture on Insanity by Dr. John Macpherson in which is an interesting discussion of the toxic element in many forms of mental disease, an important conception which is coming to the front in this branch of medicine. Dr. W. Allan Jamieson draws attention to the value of pyraloxin, a modification of pyrogallic acid, in dermatology, and Dr. Frederick W. Price discusses the prognosis and treatment of early pulmonary tuberculosis in a paper which, though it contains nothing very novel, affords a useful summary of the subject. Mr. A. Francis Steuart, advocate, contributes an interesting historical sketch of celebrated trials for poisoning in Scotland up to the year 1625.

New Inventions.

A PORTABLE ELECTRIC LAMP FOR HOSPITAL USE OR FOR THE CONSULTING ROOM.

THIS lamp has been designed for the purpose of providing a cheap serviceable light and portable lamp for use where electric current is available, particularly in hospital wards, consulting rooms, or houses supplied with electric current from the mains. It consists of a small lantern fitted with a suitable electric lamp, fibre handle, bull's-eye condenser,

flexible cord, and fittings. The lantern is kept cool by means of the air currents between the inner and the outer jackets. Its portability compared with those in present use and its advantages over cell lamps should commend it to those in particular who require portable lamps for general work. It was designed by Dr. J. Howard-Jones, medical officer of health of Newport, for use in the borough isolation hospitals, Newport (Mon.), and has been made by Messrs. Mayer and Meltzer of 71, Great Portland-street, London, W.

THE "ENGLEFIELD" BOOK SUPPORTS.

THE illustration represents a support on which books or paper may be held in an inclined position for the purpose of reading, writing, or drawing. In sitting at school desks while learning these arts children are very liable to acquire the habit of placing themselves in a stooping or round-shouldered position, to the injury not only of their figures but of their eyesight. In order to prevent this Mr. Englefield, who is the headmaster of the Gloucester municipal school of art, has devised two supports which are very portable and convenient in use, and which hold a book or paper at an inclination of rather more than half a right-angle—namely, about the ordinary slope of an artist's easel or a newspaper stand in a reading room. These supports are intended to

stand on an ordinary table as shown and consist of two parts, one being the frame, measuring about 16 × 12 inches, which holds the book or the paper, and the other being an angular piece which gives the frame its inclination. The slope answers well for drawing and especially for holding a book which is being read but for ordinary quick writing most adults would prefer the paper more nearly level. The supports are in two materials—white deal (frame-shape for drawing), price 3*s.* 6*d.*; and birch wood (desk-shape), 6*s.* 6*d.* plain and 7*s.* 6*d.* stained and polished.

RICHTER'S NEEDLE HOLDER.

FROM the considerable number of patterns of needle holder which have been from time to time devised there is evidently some difficulty in combining all the requisite qualities in one instrument. Richter's needle holder presents some new features of construction and in it the clamping of the needle is not so likely to be disturbed when the grasp of the hand is tightened as in some other needle holders which we have seen. It is of superior finish and is made in four lengths—namely, 4½, 5½, 7, and 8 inches. The agent from whom it may be obtained is Mr. F. L. Anderson, 1, Furnival-street, London, E.C.

MEDICAL CROSS PURPOSES IN RUSSIA.—The recent decision of the Pirogoff Medical Society to abstain from coöperating with the Government committees in their struggle with the threatened cholera and stating that it is impossible for medical men to join such committees, &c., has raised considerable criticism in the Russian press. Now the Yaroslav medical men, to the number of 14, have sent a protest for publication to the *Novoe Vremya* because, as they allege, although anxious to follow the usual course and to have it published in the professional press, the *Russki Vrach*, to which it was sent, refused it hospitality. They protest, *inter alia*, that the Pirogoff Medical Society had no right to issue such a notice. The document closes with a formal protest against the resolutions of the Pirogoff congress as "arrogant and despotic, infringing our rights as medical men and citizens, and tending to set the members of the profession one against the other," &c.

CENTENARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

MONDAY, MAY 22ND.

A MEETING of this society commencing the proceedings in connexion with the celebration of its centenary was held on May 22nd, Sir R. DOUGLAS POWELL, the President, being in the chair.—Dr. Christian Bohr, Sir William Ramsay, Dr. Robert Barnes, and Dr. Walter H. Gaskell were admitted Honorary Fellows of the society.

Presidential Address.

The PRESIDENT then delivered the presidential address. He said: It is naturally expected that the President should address a few congratulatory remarks on the attainment of the hundredth birthday of this great society. Time only permits me to be very brief, for much has to be done to-day. I will therefore express on the part of the past presidents of this society now living—Mr. T. Holmes, Mr. J. Hutchinson, Dr. W. H. Dickinson, Mr. Thomas Bryant, Dr. F. W. Pavy, and Mr. A. Willett—and on the part of the council and myself our most hearty congratulations to the Fellows of the society on the completion of the hundredth year of its corporate life, our most hearty welcome in the name of the society to the distinguished Honorary Fellows and to the guests who honour us with their presence during this centenary celebration. The Royal Medical and Chirurgical Society was founded in 1805 for the purpose of conversation on professional subjects, for the reception of communications, and for the formation of a library. It was an offshoot from the Medical Society, the particular occasion for which could scarcely arise in modern times and from the effects of which that society soon recovered. In 1808, indeed, showing that no ill-feeling was left behind by the severance, a proposal emanated from our sister, or rather our parent, society for a reunion to form a new Society of Medicine. It is perhaps to be regretted that the union was not then effected, for a combination of the intellectual and material forces of the two principal societies in London would doubtless have been for the greater service of medicine. Might it not still be so? With the experience of the cause of this dissension, however, two very important resolutions were carried at the very first meeting of the Medical and Chirurgical Society under the presidency of Dr. Saunders, resolutions which have been in force ever since, were incorporated in the Royal Charter granted 30 years later, and have been adopted by most of the societies which have since arisen—viz., (1) "That no gentleman be eligible to the office of President or Vice-President for more than two years in succession;" and (2) "That a certain number of the council go out annually." The objects with which the society was founded have been pursued with vicissitudes of fortune but with a success which cannot but illumine our centenary retrospect with a glow of triumph and gratification and which sheds a bright prospective hopefulness and encouragement upon the future of our work. I have here a volume, which has, I hope, reached every Fellow, in which the chronicles of the society are most interestingly set forth by our honorary secretary, Mr. Stephen Paget, and which also contains a life sketch of each of the 50 presidents by our honorary librarian, Dr. Norman Moore. It is most instructive reading and I think the council has done wisely to sanction the publication of the volume and the society is indeed gratefully indebted to the able authors for the labour and interest they have taken in its production. These chronicles and records are indeed an epitomised history of the medicine and surgery of the past century, a brilliant and an exhilarating history to read, a history of achievements in medical science with which the records of no previous century can compare. It would be tedious for me even to enumerate the subjects treated of; they are matters of medical history with which you are all very familiar. I would broadly characterise them as dealing in the first half of the century with many and great incidents of medicine and surgery and in the second with great developmental movements in pathology and the treatment of disease. Isolated cases and groups of cases of great intrinsic importance and, looking back upon them, of historical interest are brought forward in the earlier, and indeed in both, periods—many of them brilliantly suggestive but not to find place and fulfilment until the larger knowledge and quickened inventions of later times permitted. Amongst such cases and papers I would mention Astley Cooper's ligature of the common carotid artery, Dundas's description of acute rheumatic peri- and endo-carditis, and Abernethy's account of mitral stenosis, all in the first year of the society's formation. At the time when the Napoleonic wars were raging we were receiving papers on the health of the navy and army from our Fellow and later our President, Sir Gilbert Blane, whose introduction of lime-juice for the prevention of scurvy saved more lives and much more misery than were sacrificed or occasioned in all those cruel encounters. Sir B. Brodie in 1836, by his temperature records of a fatal case of luxation of the cervical vertebræ with destructive hæmorrhage into the upper cord, demonstrates what his earlier experiments of 1811 had led him to believe and as had been guessed at by John Hunter, that fever was neither a mere matter of altered circulation as the older physicians had thought, nor of oxidation as the physiologists after Lavoisier were teaching, but that it was dependent upon some other controlling factor probably of nervous origin. How otherwise could be explained a rise of temperature to 112° F. in a man dying with respirations reduced to less than six per minute? Here was the earliest use of clinical thermometry, fully to be established 25 years later by the careful labours of Wunderlich in Germany and Professor Ringer in this country. The clinical thermometer is now part of the pocket equipment of every nurse and is to be found in every household, yet I remember when its value was roughly challenged by one of the greatest physicians of the time. It was during Bright's presidency in 1838 that Bostock read his paper on the clinical examination of the urine and so initiated an important development of clinical pathology. Dr. Webster's paper in 1843 on the Brutal Treatment of the Insane then prevailing was the forerunner of the gentler and more humane methods which Conolly so nobly advocated. The paper by Hamilton Roe and Thompson in 1835 (preceded 14 years by a single case recorded by Dobson) on Paracentesis for Empyema was the beginning of a great advance in thoracic therapeutics. Then we have John Hutchinson on the Spirometer, John Marshall on the Galvano-Cautery, Golding-Bird and Hilton on an Operation for Internal Strangulation in 1846–47, Kirkes on the Detachment of Fibrinous Clots from the Interior of the Heart and their Mixture with the Circulating Fluid, and Spencer Wells's first five cases of ovariotomy a year or two later. These are amongst the more suggestive of the papers in the first half of the century, every one of which may be said to herald great future achievements in medicine. The latter half of the century has also had its epoch-making papers. But in the 50 years between 1840 and 1890 there were four great events in medicine which would mark out for distinction any century—viz., Marshall Hall's exposition of the reflex function of the nervous system; the discovery of a safe anæsthesia; the discovery and acceptance of the antiseptic system in surgery; and the growing recognition of the action of bacteria in the etiology and pathology of the acute specific diseases. These four great advancements in medical science crowded into the short space of 50 years have an interdependence that might form the subject of an interesting discourse, upon which, however, I have no intention to enter. This society has had something to do with them all and they have permeated and dominated most of its later and most brilliant records. Without anæsthesia, in the absence of antiseptic methods or their more recent aseptic developments, and without a knowledge of bacteriology no advance in visceral or joint surgery was possible, no further steps for the prevention of epidemic diseases could be formulated, the explanation of many intricate disorders of digestive and excretory organs was lacking, and their satisfactory treatment was impossible. Most of the initiators of these advances in medical science which have led up to and accomplished such great results are, or have been, Honorary Fellows of the society. The honoured names, Darwin, Pasteur, Marshall Hall, Villemin, Claude Bernard, Charcot, Lord Lister, Lord Kelvin, Koch, and others still living are indelibly written upon the pages of science in its beneficent relations to humanity. Many others on our Honorary Fellows' list and amongst the Fellows of our society are still heartily engaged in pressing on the work. It might not be in good taste to signalise them out but they are well known

to, and honoured by, us all. There are other papers not directly connected with these four eventful discoveries which are of great practical and historical importance. Samuel Fenwick's paper on the Microscopical Examination of Sputum and Marcet's paper on the Inoculation of Sputum in the Diagnosis of Tuberculosis followed close upon Villemin's discovery of the inoculability of tubercle in 1865, preparing us 17 years beforehand for Koch's great discovery of the specific poison of that disease. Mr. Jonathan Hutchinson's paper on Vaccino-Syphilis in 1871 was of vast and far-reaching public importance. The report of a committee on the Hypodermic Use of Medicines in 1867 marked the time which, to some of us, may seem almost prehistoric when the hypodermic syringe was only coming into use. Dr. Ord's paper on Myxœdema in 1877 may also be especially mentioned. But the chief work of later years has undoubtedly been the development of visceral and especially of abdominal surgery, the necessary conditions for which did not previously exist. It was within the walls of this society that Spencer Wells in 1871 established the operation of ovariotomy which led up to so many further developments of ovarian and uterine surgery: and that Sir Frederick Treves in 1888 read his first paper on Relapsing Typhlitis treated by Operation: and it was here, too, that the operative treatment of appendicitis was brought up to date by a spirited discussion only a few weeks ago. I think that one of the attributes of our society which may give us most unbounded satisfaction is the magnificent library we have acquired. Much of this has been due to the liberality of friends in sending us their works and in presenting to us rare books which have come their way. But to the enterprise of the society and to the lavish expenditure of its scanty funds in former years it is chiefly due that we have perhaps the finest library of medical and scientific works in the world. I am not sure that the censure of our chronicler is all deserved for our illiberality with regard to publication of our proceedings in early years. For at that time the sale of our Transactions was a large source of our income provided by the work of our Fellows and wholly expended not upon themselves but upon new books for the library. The occasion and the practice have now long since passed. Perhaps the object which the society had in view at its first foundation second to that of acquiring a library—viz., the conversational discussion of cases and subjects of medical and surgical interest—has been least cultivated and perhaps amongst the amendments that must come in our proceedings in due time this point may be considered. Whatever future may be before us we can look back upon a vigorous past and a prosperous present. At no time has the position of the society been better recognised than to-day, at no time has its material prosperity been greater. I would suggest that a grateful thought for the many distinguished men who formed the councils of our society in the past and have carried it on to its present prosperity may fitly occupy our minds during this centenary. Nor should we forget the permanent officials of the society. We may some of us remember the genial courtesy of our late librarian, Mr. Wheatley, who spent the best years of his life at our former house in Berners-street; and to our friend, Mr. J. Y. W. MacAlister, with his business talent, wide knowledge, and zeal in the service of the society, we owe much of our present prosperity, whilst to his great energy and that of his staff of assistants in carrying out the wishes of the council and special committee is due the success which will, I hope, attend the celebrations which we commence to-day.

After the address Professor J. CHIENE on behalf of the Medico-Chirurgical Society of Edinburgh, Mr. JOHN LANGTON on behalf of the Medical Society of London, Dr. FREDERICK TAYLOR on behalf of the Clinical Society of London, Dr. ROBERT BOXALL on behalf of the Obstetrical Society of London, and Mr. CHARTERS J. SYMONDS on behalf of the Laryngological Society of London, congratulated the Fellows of the Royal Medical and Chirurgical Society on the attainment of the 100th anniversary of the foundation of the society.

Mr. JONATHAN HUTCHINSON proposed, and Mr. THOMAS BRYANT seconded, a vote of thanks to Sir R. Douglas Powell, which was carried unanimously.

The Banquet.

The Prince of Wales was the guest of the evening at the centenary banquet held at the Hotel Cecil on May 22nd. The chair was taken by Sir Richard Douglas Powell, the President of the Society, on his right hand side being the Prince of Wales and on his left the Duke of Northumberland. The company numbered about 480 and amongst those present were Lord Alverstone, Professor T. Clifford Allbutt, Sir Squire Bancroft, Sir T. Barlow, Sir W. H. Bennett, Mr. J. Bland-Sutton, Professor Christian Bohr, Sir Lauder Brunton, Sir W. J. Collins, Professor J. Chiene, Sir A. Cooper, Sir C. Cust, Sir G. Doughty, M.P., Sir Dyce Duckworth, Sir Arthur Conan Doyle, Sir J. Dewar, Sir W. Foster, M.P., Sir W. R. Gowers, Sir C. Holman, the Hon. S. Holland, Sir W. Huggins, Director-General A. H. Keogh, Dr. D. MacAlister, Sir A. R. Manby, Sir Patrick Manson, Professor Pierre Marie, Sir John Moore, Sir Shirley Murphy, Sir H. F. Norbury, Sir L. H. Ormsby, the Bishop of Oxford, Sir J. Paget, Sir G. H. Philipson, Sir W. Ramsay, Sir J. Reid, Sir A. W. Rücker, Sir F. Semon, Lord Strathcona and Mount Royal, Sir W. Taylor, Sir F. Treves, Sir J. Batty Tuke, Sir J. Williams, the Right Hon. John Morley, and the honorary secretaries, Dr. G. N. Pitt and Mr. S. Paget.

The toast of "The King" was proposed by the PRESIDENT and drunk with enthusiasm. This was followed by the toast of "Queen Alexandra, the Prince and Princess of Wales, and the other members of the Royal Family," which was proposed by the PRESIDENT in felicitous terms and was acknowledged by the PRINCE of WALES who, upon rising to reply, was greeted with hearty cheering. The wonderful carrying power of the voice of His Royal Highness and his excellent elocution were well exemplified in the large hall in which the banquet was celebrated. The PRINCE of WALES said:—

My Lords and Gentlemen,—I am greatly touched by the words of Sir Richard Douglas Powell, and in the name of the Queen and the Princess of Wales and the other members of my family, and on my own behalf, I heartily thank him for the sentiments to which he has given expression and this distinguished assembly for the kind manner in which they have received this toast. I am very happy to be present on this occasion, memorable in the history of the Royal Medical and Chirurgical Society, when we celebrate to-night on the exact date, May 22nd, the anniversary of the day on which this society was founded just 100 years ago. I consider it a great honour to have been enrolled among its honorary Fellows and to be associated with the names of men eminent both in our own nation and in almost every other nation of the world. And I am very pleased to meet some of them here to-night. It is a further satisfaction to me to be identified with a society with which my family has been connected ever since its incorporation by Royal Charter in 1834. Sir Richard has kindly referred to my position as President of King Edward's Hospital Fund for London. I regard it as a precious trust transmitted to me by the King—its founder; and I shall always endeavour to the best of my power to further its work, the gradual but steady development of which I watch with keen interest and satisfaction, for it is my firm conviction that there is no better way in which we can help our poorer brethren and sisters than through the healing work and humanising influences of our great hospitals. With regard to the Imperial Cancer Research Fund I am glad to say that we are working in close touch with similar undertakings in other countries. Considerable and valuable results have been attained during the past year, and I trust that we may look forward to the day when medical and surgical knowledge will have unravelled the mysterious cause of this terrible disease and have acquired the power to deal successfully with it. I must congratulate this famous society on celebrating the 100th anniversary of its foundation. In spite of its years it is still full of the vigour, enterprise, and enthusiasm of youth. The advances which have been made in the science of medicine and surgery during the last 100 years are almost without a parallel in the history of human progress. During this period physiology has been established as a precise branch of learning, while the new science of bacteriology would seem to have laid bare the very foundations of disease. Antiseptics and the clinical thermometer have been invented, and methods of investigation introduced of which, I am sure, the medical profession of 1805 had never even dreamt. In the foundation of antiseptic surgery by Lord Lister this country can claim one of the greatest achievements in the cause of humanity. In the sphere of public hygiene nothing short of a revolution has been effected. Our hospitals, which 100 years ago were little more than mere refuges for the sick, have become institutions in which the most beneficent treatment is carried out with scientific thoroughness. With

this great century of progress this society has indeed been actively concerned and it can look back upon its record of 100 years with the assurance that it has taken no little share in a memorable scientific advance. Its deliberations can only result in a widening of the capabilities of medicine and surgery and in a lessening of the mass of human suffering. With it also rests the grave responsibility of passing judgment upon new projects and new theories, of directing investigation into right channels, and of keeping a jealous watch upon the scientific reputation of a great profession. I feel confident that the Royal Medical and Chirurgical Society will maintain this trust as faithfully in the future as it has in the past. I heartily wish the society every continued prosperity. Gentlemen, I am most grateful for the hearty welcome you have given me and I assure you it has given me the greatest possible satisfaction and pleasure to have come here this evening and to be present on this memorable occasion.

The PRESIDENT then proposed the toast of "The Society." He said that His Royal Highness the Prince of Wales had already alluded to much of the work which had been performed by the society in the past 100 years and it was more fully described in the chronicles now in the hands of every Fellow of the society and in the personal records of the presidents of the society sketched by Dr. Norman Moore. In those chronicles were contained accounts of all the difficulties that the society had experienced and of its growth till it had arrived at the distinguished old age of 100 years. In these chronicles were faithfully reflected the history of medicine in the past 100 years. The society was founded in 1805 with Saunders as its president, the objects of the society being set forth as for the conversation on subjects of medical and surgical interest, for the reception of communications from various parts of the world, and for the formation of a library. Amongst the men who established this society were Abernethy, Babington, Blane, and Cooper. At first the society existed merely as a symposium for discussion of matters of mutual interest. Then papers were received and by degrees a library was formed. Premises for the society were acquired at first on a humble scale and then in 1834 a house was taken in Berners-street which was occupied by the society for about 50 years. In 1834 the society received its Royal Charter and in that year King William IV. became its patron and it has enjoyed the patronage of the Royal Family ever since that time and to-day it had the additional distinction of adding the name of the Prince of Wales to the roll of its honorary Fellows. The society now possessed a library of some 50,000 volumes, with the journals and proceedings of every learned society throughout the world. No advance in medicine or surgery had taken place which had not been promoted by this great society. The Prince of Wales had enumerated the many momentous advances in medicine which the society had been the means of bringing to light. In the first half of the century single instances appeared as streaks of light that usher in the dawn of great movements and discoveries. In the latter half of the century there were important accessions to medical knowledge; the first was the attainment of a safe anæsthesia; secondly, there was the establishment of the antiseptic methods to which the Prince of Wales had already alluded; and thirdly, there was the recognition of the bacterial origin of specific disease. There was no necessity to discuss the history of these great and fruitful advances in medicine which were as familiar as household words, so much so that to describe what went before them now seemed an excursion into the dark ages of prehistoric times. Without anæsthesia deliberate surgical procedures would be impossible and without antiseptic methods intestinal surgery could not be undertaken. It would be almost impossible to reckon up the number of lives that had been saved and the amount of suffering that had been spared by the daily operations that were now performed, not one of which would have been possible 35 years ago. Lord Lister, 35 years ago, by his researches revolutionised surgery. In 1859 pyæmia accounted for something like 42 per cent. of deaths in amputation cases; at the present time the disease was scarcely known. In the history of ovariotomy was found typified the vast progress of internal surgery. In the "sixties" ovariotomy was protested against as being too fatal and the operation was only established in 1871 in the rooms of the Royal Medical and Chirurgical Society by the strenuous and courageous advocacy of Sir Spencer Wells. In 1871 the mortality accompanying the operation of ovariotomy was 22 per cent., by the year 1881 when the teaching of Lord Lister had been well established the mortality had fallen to 4 per cent., and at the present time was less than that. Anæsthetics and antiseptics had alone rendered this achievement possible and it was typical of the advances that had taken place in every department of surgery. Continuing, the President stated that in his student days the exact causes of acute diseases like lockjaw, cholera, and typhoid fever were not known. At the present time it was possible to depict upon the screen the particular organism which was responsible for each of those diseases. They could detect the organisms and knew their habits, food, virulence, and manner of growth. There were certain persons who grumbled at the cost of hospital administration and at the expense of medical attendance but when the conditions of practice in those days were contrasted with the medical and surgical practice of the present day then it had to be admitted that the labour and thought of a century had not been thrown away. The rates of mortality had steadily fallen in consequence of the work of medical men engaged in the prevention as well as the cure of disease. So perfect was sanitation becoming that the time was rapidly approaching when medical men would be able neither to live nor to die. The members of the Royal Medical and Chirurgical Society could be forgiven for a certain amount of jubilation on the unique occasion they were celebrating but in their hearts they were mindful that much remains undone. They were aware of opportunities that had been lost and they remembered the strenuous labours of sister societies. They were humbly mindful of the increasing responsibilities of the next century and they were solicitous of succeeding by uniting the forces that now overlapped in advancing to higher realms of achievement.

Dr. PYE-SMITH then proposed the toast of "Literature and Science." He observed that there had ever been a close connexion between the medical profession and literature. In that golden period which intervened between the Wars of the Roses and the Reformation there were four men who directed the new learning and the national education. Their names were Erasmus, Sir Thomas More, Dean Colet, and Linacre. Linacre was the founder of the Royal College of Physicians and was an eminent Greek scholar. He was followed by Dr. Caius of Cambridge and Datchet. In the seventeenth century the medical profession contributed to literature an author of the first rank—Sir Thomas Browne, who wrote "Religio Medici," "Pseudodoxia Epidemica," "The Garden of Cyrus," and "Urn Burial." An eminent physician once said that Sir Thomas Browne was a more important man than his contemporary the great Harvey, because if Harvey had not discovered the circulation of the blood somebody else would certainly have done it, whereas if Browne had not written the "Religio Medici" no one else could. In the following century the great literary physician was Arbuthnot who was the friend of Swift, of Pope, and of Gay. Arbuthnot contributed three of the greatest satires to our language, "The History of John Bull," "The Conduct of the Allies," and "The Epitaph on Colonel Charters." After the death of Arbuthnot who died, it was feared, from cirrhosis of the liver, Pope confided the care of his health to the great Dr. Mead, the collector of the finest library of the period, and also to the great anatomist and surgeon Cheselden, both of St. Thomas's Hospital; and Pope did what it was often wished the patients of the present day would do—he took what Mead and Cheselden advised. Johnson found a friend and physician in Heberden, whom he called "Ultimus Romanorum," the last of the learned physicians. Those who read Heberden's Commentaries must still be struck with the conciseness of his style, the perfect clearness of his language, and the abundance of his good sense. Johnson himself in his Lines on the Apothecary Robert Levet has portrayed the humble but useful life of the general practitioner and thereby has proved his title to the name of poet. A medical writer who was also of high literary merit was Sir Thomas Watson. His art in telling cases was remarkable. They still had learned physicians amongst them. There were Dr. J. F. Payne, the Harveian Librarian; and Dr. Norman Moore, who told sad stories of the deaths of Kings. And they still had learned surgeons; there were Mr. Tweedy (President of the Royal College of Surgeons), Mr. Stephen Paget, and Mr. D'Arcy Power. Though literature was still a relaxation, a refreshment, and a delight to medical men the art of medicine depended for its progress and for its existence upon science. By science they had reached the present condition of progress and by

science alone persistently and ungrudgingly pursued they would reach new successes in the prevention and cure of disease. How scientific the whole bent of medicine was was proved not only by the broad stream of authors like Harvey, Hunter, Jenner, Bichat, Laennec, Claude Bernard, Chauveaux, Johannes Müller, Ludwig, Pasteur, and Lister, but also by the fact of many medical men who excelled in other branches of science—men like Gilbert whose great work on the magnet had lately been re-published by Sylvanus Thompson; men like Mayow, a young Oxford doctor, who in his short life established the mechanism of respiration and discovered the existence of oxygen. There was also Thomas Young, physician to St. George's Hospital, who published the undulatory theory of light, deciphered the Rosetta stone, and earned the unstinted praise of Helmholtz—a praise, however, which had not been denied him by his own countrymen, as the great German supposed. Science was the very breath of life to medicine and investigations must continually go on. Encouragement was not wanting, for much had been done towards the prevention of diphtheria, of malaria, and of many tropical diseases since a royal critic asked the question, Why preventable diseases were not prevented? They all gratefully acknowledged the interpretation given by the eldest son of England to the ancient motto of the Black Prince, "*Ich Dien*," by serving on the council of the association formed for the purpose of studying the origin of, and in time it was trusted the prevention of, that terrible disease called "malignant."

Sir ARTHUR CONAN DOYLE acknowledged the toast. He remarked that the fact that he was chosen to respond was the latest illustration of the rule that in this country it was the understudy who had always had to do the hard work. He wished that Mr. John Morley had taken the task of replying on himself. He had been given to understand that his name was coupled with the toast because he was a medical man. That was true, but an unkind critic had added that no living patient of his had ever been seen. There was, however, one little corner of the subject on which he might be permitted to make a few remarks. Some authority had been lately examining the law as it was found in novels and had concluded that the novelist's law was almost more strange than the law with which they were all familiar. According to the novelist if a man died intestate his property went to the nearest villain, but however that might be if the law of the novelist was strange the medicine of the novelist was still more so. In novels only a few diseases were recognised and those were all to do with the upper part of the body, for no novelist ever hit below the belt. The symptoms of diseases and their treatment were very simple in novels. The patient who went into a decline was most useful in fiction and the successful treatment of such a case was the reappearance in the last chapter of the splendid hero who had been so grossly misunderstood in one of the earlier chapters. Often with this extreme wasting the novelist coupled an almost ethereal beauty but the disease that was most useful to a writer of fiction was undoubtedly fits—whether apoplectic or epileptic mattered little to the novelist. The point was that the heavy and stertorous father was always eventually carried off in a fit, often falling down with a pen in his hand in front of an unsigned will. That was an exceedingly effective situation. And then, again, there was that mysterious malady known in novels as brain fever. That was a wonderful disease and exceedingly useful for many purposes. As novelists only possessed a few diseases they were anxious still to have the use of them. The irascible parent always afflicted with gout in the ball of the great toe was one of the novelist's most necessary puppets. The writers of fiction, however, claimed to be kindly disposed towards the medical profession and always portrayed the village practitioner as a most worthy person and depicted the visit of the solemn consultant from London without undue malice.

Sir WILLIAM HUGGINS (President of the Royal Society) was also intrusted with the task of acknowledging this toast. He said that the Royal Society had for two and a half centuries with untiring energy strenuously pursued the objects for which the society was formed—namely, the pursuit of natural knowledge; he did not consider that it was inappropriate for the Royal Society to be represented on that occasion, for the connexion between the Royal Society and the medical profession had always been an intimate one. Among the original members of his society were many physicians and surgeons and its roll had always contained many names of men distinguished in the medical profession of whom some had been presidents of his society, amongst whom he might mention the name of Huxley and last, but not least, his immediate predecessor that great man Lord Lister, who by the introduction of scientific methods into surgery had rendered comparatively safe operations which before were accompanied by very grave risk and had made possible operations which before could not have been entertained. Lord Lister was a man not only honoured by his own countrymen but also by mankind throughout the wide world. Happily the time had long passed when medicine and surgery were in the hands of illiterate people and quacks, but nevertheless in comparatively modern times the paralysing idea had prevailed that the living body was an enchanted ground outside the sway of physical and chemical forces where vitality reigned supreme and was all in all. The wonderful progress, however, of the art of healing in modern times had followed closely on the advances made in chemistry and physics. Medicine had been raised to the position of an exact science by the introduction of the accurate methods of physics and chemistry into the medical schools. It might be considered that medicine came wholly under the dominion of science when the true principles of the conversion of energy were found to hold good in regard to living things; in other words, the discoveries of science by bringing into medicine the use of physical methods and forces had diminished disease and prolonged life. Among these discoveries was the great work of Darwin which filled the intellectual world with new life. The investigations carried out by the Royal Society in regard to certain deadly diseases seemed to show that it was in the power of man so to control the conditions of the propagation of disease as to make it possible for Europeans to live and work in parts of the earth where hitherto the sacrifice of health and life had been lamentably great. The progress of medicine over disease had followed improvements in investigating natural knowledge and in the future they must look for the more intimate acquaintance of nature to secure further triumphs over disease and premature death, ultimately bestowing on man a longer and a fuller life.

The toast of "The Visitors" was given by Mr. H. T. BUTLIN, who referred first to the chief guest of the evening. His Royal Highness the Prince of Wales, to whom they were indebted for his presence there that night and also for honouring the society by becoming one of its honorary Fellows. The Prince of Wales was the first Royal honorary Fellow of the society and it had taken it 100 years to achieve that honour. Everyone, however, would admit that the time had not been ill spent. Mr. Butlin said that he envied the Prince of Wales much but he envied him most because he had heard him better than any person who had spoken in that room that night. Mr. Butlin then went *seriatim* through a list of the principal guests, beginning with the Duke of Northumberland, who responded to the toast.

The Duke of NORTHUMBERLAND, in replying, said that there were four great professions in this country which stood at the head of all other professions—the navy, the army, the medical, and the legal professions. They were respected and valued but no one wished to avail themselves of their active services if they could help it. Although, however, in one sense they did not wish to avail themselves of the services of these professions, in another sense they did; there was the preventive side in all these services and everyone felt safer in consequence of the care bestowed on the preservation of the common interests. Though that side of their work was less known to the world than their more showy and observable deeds, still at the same time everyone was conscious of the debt that was owed to them and to none of the services was a greater debt owed than to the science, the energy, and the devotion which were expended on preventive medicine by the medical profession. The Duke of Northumberland concluded by saying that, however incompetent any of the guests of the society might be, there was not one who was not fully alive to the value of the researches carried out by the medical profession and every guest was anxious to aid in every way the great work which the society and the medical profession had so magnificently discharged in the last 100 years.

Lord ALVERSTONE (the Lord Chief Justice of England) then submitted the toast of "The President." He commenced by warning Sir Arthur Conan Doyle that in his remarks upon the law he had forgotton that the Prince of Wales was a member of the House of Lords and he cautioned him

to be more careful in future. The occasion on which they met that night was unique. Previous speakers had spoken of the work of this great society and had referred to the changes in medical science during the last century, but it was remarkable that that evening also put on record a new coincidence—namely, that the President of the Royal Medical and Chirurgical Society was a gentleman who was also President of the Royal College of Physicians. He felt that the great position which Sir Richard Douglas Powell held in the medical profession rendered any words from him unnecessary and when they remembered the great predecessors in his office, Sir James Watson and Sir William Jenner and Sir William Church, he felt sure that the position of Sir Richard Douglas Powell was one which commanded the respect of all and would induce them all to give the toast which he proposed a most hearty welcome.

The PRESIDENT, in replying to the toast, thanked the honorary secretaries who had so successfully worked for the banquet and acknowledged the services of the secretary of the society, Mr. J. Y. W. MacAlister.

The Prince of Wales having retired from the banqueting hall the very successful proceedings came to an end.

TUESDAY, MAY 23RD.

The Marshall Hall Address.

Sir R. DOUGLAS POWELL, the President, being in the chair, Dr. HENRY HEAD, in commencing his address, said that the society met that evening to celebrate the 100th anniversary of the Royal Medical and Chirurgical Society and at the same time to pay a tribute to the memory of Marshall Hall. To him they owed the first accurate conception of what was known as reflex action. Dr. Head then introduced the subject of his oration, the Afferent Nerves under a New Aspect, and said he hoped to remove the barrier which had always existed between the sensory nerves of the body wall and those which belonged to what was usually called the sympathetic system. Certain nerves supplying the skin of the body could be found to belong to the same system as those which supplied the internal organs. In addition he hoped to show that the skin and subcutaneous tissues possessed sensory nerves which did not exist elsewhere. To these two systems was added a third set of afferent fibres which ran for the greater part with the motor nerves but separated from them at last to enter the spinal cord by the posterior roots. It was the impulses conveyed by these three sets of nerves which were sorted in the central nervous system into the great functional groups of (*a*) touch, (*b*) pain, and (*c*) temperature and sense of position. Division of a peripheral nerve, such as the median, caused total loss of sensation over the greater part of the index and middle fingers and over part of the thumb on its palmar aspect. In addition, sensation was partially lost over a larger area. This area of partial loss was in reality one of complete insensibility to certain stimuli, such as light touch, intermediate degrees of heat and cold, and to the two points of the compasses. When the hand had settled down after the shock of the injury that had divided one or more of the nerves of the palm it was found that although the area corresponding to the nerve divided was totally insensitive to certain higher forms of stimulation a stimulus producing pain—e.g., a prick of a pin—caused a more unpleasant effect than over normal parts. Recovery of sensation after complete division of a peripheral nerve began with disappearance of the analgesia and with the return of sensation to the extreme forms of temperature. But the hand remained exactly as insensitive as before to the higher stimuli such as light touch. It was to the condition of the hand at the stage of recovery that he particularly wished to draw attention. It might have been inferred that with the gradual disappearance of analgesia an improvement would follow to the higher forms of stimulation. This was not so. The boundary at which light touches were lost might remain as definite for many months as in the days immediately following the injury, although sensibility to pain, to heat, and to cold had vastly improved. The characteristics of a part which had become sensitive to prick and to the extremes of heat and cold were (1) that the sensation radiated widely, was referred to remote parts, and could not be accurately localised; (2) a prick produced a more unpleasant sensation than over normal parts; and (3) the sensation produced gave no measure of the intensity of the stimulus by which it had been evoked but was governed by the extent of the area stimulated. This sensibility, as far, at any rate, as heat and cold were concerned, was due to the presence of minute areas (hot and cold spots), each of which could be stimulated by heat or cold alone. This form of sensation was designated protopathic sensibility. After the affected part had remained for a variable period in this condition it began to become sensitive to light touches and the intervening degrees of temperature were again distinguished correctly from one another. With the gradual return of sensation it again became possible to discriminate two points at distances more nearly normal and the widespread radiation so characteristic of the first stage of recovery ceased and was replaced by an increased accuracy of localisation. The form of sensibility was designated "epicritic," since it was peculiarly associated with the localisation and discrimination of cutaneous stimuli. A third form of sensibility was investigated in a case of complete experimental division of the radial and external cutaneous nerves at the elbow. After the radial half of the arm and back of the hand had been rendered totally insensitive to cutaneous stimuli the denervated parts of the hand remained sensitive to pressure or to any stimulus that deformed the subcutaneous structures. Localisation of those stimuli which could be appreciated was remarkably good. The fibres upon which this sensibility depended must run with the motor nerves. This form of sensation was designated "deep sensibility." The existence of this deep sensation depended on a separate system of fibres which ran with the nerves to voluntary muscles. Protopathic and epicritic sensibility probably depended also on two separate sytems of nerve fibres for the following reasons: (1) occasionally, after division of a peripheral nerve sensibility to pain, to ice, and to 50° C. might be abolished, but that to light touch and to water at 40° C. remained; and (2) after complete division of a nerve protopathic sensibility returned before epicritic, whereas after functional division (incomplete destruction of the nerve) the two forms of sensation returned *pari passu*. Evidently the two systems regenerated with unequal facility, the "protopathic" system regenerating more rapidly and with greater ease than the "epicritic" system. A part deprived of its nerve-supply was liable to injuries and the sores and ulcers so produced healed slowly. Such sores healed rapidly and permanently as soon as protopathic sensibility returned to the part, even though all epicritic sensation was still absent. The growth of nails was materially diminished by want of movement, deficient blood-supply, and muscular paralysis. It was a well-known fact that the nails did not grow as rapidly on the hand after the nerves had been divided, but by a series of observations extending over four years it had been shown that this was not due directly to the absence of any nutrition stimulus in consequence of division of the nerve but rather to want of movement associated with those vascular changes which were always liable to occur after division of a peripheral nerve. Every peripheral afferent nerve to the limbs contained protopathic and epicritic fibres. Towards the periphery the latter tended to fall into certain groups and the area supplied by each group did not overlap that of another group materially. The protopathic fibres, on the contrary, overlapped to the greatest amount on the periphery of the limb. This overlapping became less as the posterior roots were approached, showing that these fibres still maintain to a certain extent their segmental arrangement. The threefold arrangement of deep, protopathic, and epicritic sensibility ceased in the central nervous system at the first cell junction. The impulses conducted along these three lines became sorted out into paths for light touch, for localisation and stereognosis, for pain, for heat, and for cold. With regard to sensibility of the viscera, observations on the application of temperature stimuli to the intestine seemed to show that its sensibility resembled that which, in the skin, has been called protopathic. But it is entirely insensitive to all those stimuli which evoke epicritic sensation. In conclusion it was suggested that the body within and without was supplied by afferent nerves which belonged to the protopathic system. This could be divided into somatic and splanchnic: the latter included all that had previously been known as the afferent sympathetic. The protopathic system was peculiarly associated with the reflexes and with feeling tone (pleasure and pain). The sensations evoked from it in answer to appropriate stimuli were widely diffused and were not infrequently referred to parts at a distance. The fibres of the protopathic system regenerate with greater ease and rapidity than those of the epicritic system, or those of the motor nerves to voluntary muscle. This system retained to a considerable degree its original segmental arrangement. The external surface of the body and limbs

were innervated by a second system of fibres which has been called epicritic. This system is of later development and regenerates more slowly than the protopathic. It was peculiarly associated with the localisation and discrimination of cutaneous stimuli. All subcutaneous structures were also innervated from afferent fibres that end in organs peculiarly susceptible to pressure. These fibres in the limbs and body wall ran in conjunction with the motor nerves to voluntary muscles and this deep sensibility was not materially diminished by the destruction of the sensory nerves to the skin.

A vote of thanks to Dr. Head was proposed by Dr. D. FERRIER, seconded by Dr. W. H. GASKELL, and carried unanimously.

WEDNESDAY, MAY 24TH.

The Conversazione.

A conversazione, largely attended by Fellows and their friends, was held at the Natural History Museum, Cromwell-road, on May 24th. The guests were received by the President of the society, Sir Richard Douglas Powell, and Lady Powell in the Central Hall. Amongst those present were the Duke of Northumberland, Lord Strathcona and Mount Royal, and Señor Manuel Garcia, the last named taking great interest in the model of the gigantic diplodocus which was displayed in the Reptile Gallery. Señor Garcia did not stay more than an hour but managed, with the help of Dr. W. Ewart, to see a great deal of the exhibits in the museum. The band of the Royal Artillery played in the Central Hall and the Meister Glee Singers drew a large audience, their rendering of "The Old Folks at Home" attracting especial attention. A large number of those present were shown round by Professor Ray Lankester who spared no pains in explaining the interesting treasures of the museum.

An Historical Exhibition.

A small but highly interesting historical exhibition was formed in connexion with the centenary celebration of the society. This exhibition was held at the society's rooms during Monday, Tuesday, Wednesday, and Thursday from 11 in the morning until late in the afternoon and the opportunity so afforded for inspection was taken advantage of by many medical men.

Looking Back.

As the centenary of the Royal Medical and Chirurgical Society has been celebrated this week we have thought it appropriate to reprint the following extracts from THE LANCET recording the receipt by the society of its charter of incorporation, and reporting the annual meeting held in the society's jubilee year, when, curiously enough, the question happened to be raised of excluding THE LANCET from the society's library. We wonder what the speakers would have said if it had been suggested to them that 50 years later one of the Editors of THE LANCET and the editor of the *British Medical Journal* would be members of the Council of the Society.

From THE LANCET, SATURDAY, SEPT. 6TH, 1834.

MEDICAL CHARTER.—(*From a Correspondent.*) It is no small proof of the progress of liberal opinions, that the *Medico-Chirurgical Society* have, *without opposition*, obtained from the present Government a charter of incorporation. In due time the history of the intrigues by which an application for a similar charter was defeated under a Tory administration will be made public. The facts came out before the medical committee, and are recorded in the evidence. The President of the College of Physicians was the chief opponent of the Society, and his reasons for interfering were grounded on an impression that his College would in some way be affected by the existence of a chartered medical Society which held its meetings so near his own door.

From THE LANCET, SATURDAY, MARCH 10, 1855.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

JAMES COPLAND, M.D., F.R.S., PRESIDENT.

ANNUAL MEETING.

THURSDAY, MARCH 1ST.

The annual meeting was held this day, the President in the chair. The Report of the Council showed that the Society was in a prosperous condition. The following gentlemen were elected office-bearers for the session 1855–56:—

President: Cæsar H. Hawkins.—*Vice-Presidents:* George Corsham, M.D.; William Baly, M.D., F.R.S.; George Busk, F.R.S.; Fred. Le Gros Clark.—*Treasurers:* Joseph Moore, M.D.; Thomas Blizard Curling, F.R.S.—*Secretaries:* Thomas Bevill Peacock, M.D.; H. Spencer Smith.—*Librarians:* Wm. Wegg, M.D.; James Dixon.—*Other Members of Council:* Henry S. Dyer, M.D.; Henry Bence Jones, M.D., F.R.S.; Thomas H. Silvester, M.D.; Theophilus Thompson, M.D., F.R.S.; Charles West, M.D.; James Moncrieff Arnott, F.R.S.; Charles Brooke, F.R.S.; John Eric Erichsen; Henry D. Jones; John Simon, F.R.S.

The following resolution was also carried:—

"That no resolution carried by way of original motion, or as an amendment, at the annual general meeting, (except resolutions with respect to the election of the Council, and other prescribed matters, and usual business of such meeting,) or any other general meeting, of which notice shall not have been given in the circular summoning such meeting, shall be binding on the Society or Council, until such resolution shall be confirmed by a special general meeting, to be convened within fifteen days of the meeting, at which such resolution shall have been carried, by notice from the Council, stating the object of such meeting, and the resolution or resolutions to be proposed for confirmation, and such notice shall be sent to all the Fellows at least five days previous to such meeting, and no question shall be discussed at such meeting, of which notice shall not have been given in the summons."

When the report of the Council had been read, an attempt was made by Mr. de Morgan and Mr. Ancell to show that the reading of that document was not part of the proceedings of the annual meeting, and that therefore an amendment might be made upon its reception. A long, desultory, and somewhat exciting conversation followed, in which amendments and motions were made and withdrawn, with the view, on the part of the proposers of discussing again the proposed withdrawal of THE LANCET from the library. Dr. Copland objected to any resolution upon the subject, and refused to put one, stating that the subject had been disposed of by the Council, which had been delegated by a public meeting to do so. Besides he, as chairman, would not allow a fresh contest between the partisans of opposition journals: that was not the place to fight such battles. He should therefore resist any attempt or subterfuge by which the contest could be renewed. Eventually the report of the Council was read, and Mr. Ancell then proposed an amendment to the effect, that as it had not referred to the proceedings respecting THE LANCET, it was unsatisfactory and incomplete. Mr. de Morgan then entered into a lengthened complaint against the Council, and said that it was only on the conviction that they would have acted differently from what they did, that he supported the proposal of Sir Benjamin Brodie, at the special meeting. Mr. Rowdon also spoke, and complained bitterly of the conduct of the Council. Mr. Travers begged of the Fellows not to continue to agitate political questions in the Society; they were quite foreign to its objects, and calculated to ruin the Society. He strongly reprobated such discussions as he had been listening to, and said that it was absurd to attempt to exclude one journal in particular. There was nothing to choose between them; one was as bad as the other. Eventually the amendment of Mr. Ancell was rejected by a majority of fifty-nine to twenty-four, and the meeting, after some routine business, broke up.[1]

[1] See also THE LANCET, March 11th, 1854, p. 270.

SOCIETY FOR THE STATE REGISTRATION OF TRAINED NURSES.—The third annual general meeting of this society will be held at the Medical Society's rooms, 11, Chandos-street, Cavendish-square, London, W., to-day (Friday, May 26th) at 3 P.M. Item No. 5 on the agenda is an address by Mr. R. C. Munro-Ferguson, M.P., on Parliamentary Procedure in Relation to the Passage of Bills into Law.

HOSPITAL FOR EPILEPSY AND PARALYSIS, &C., MAIDA-VALE.—The annual meeting of the supporters of this hospital will be held at the new hospital, 4, Maida-vale (near the end of St. John's Wood-road), at 3 P.M., to-day (Friday, May 26th). The chair will be taken by the Right Hon. the Viscount Clifden, Vice-President. The committee of management states that the first section of the new hospital has now been erected, furnished, and fitted at a cost exceeding £25,000 and that the experience of the past 12 months shows that some £2000 will be needed to meet each year's expenditure.

THE LANCET.

LONDON: SATURDAY, MAY 27, 1905.

The Centenary of the Royal Medical and Chirurgical Society.

THE Royal Medical and Chirurgical Society of London has fitly crowned a century of useful work by the varied celebrations which have covered several days of the past week and which have happily blended the pleasures of society with the pursuits of science. The gracious consent of His Royal Highness the PRINCE OF WALES to accept the Honorary Fellowship of the Society, his presence at the banquet on Monday evening, and the appreciative speech in which he sketched the progress of medicine since 1805, all indicate the favour with which His Majesty the KING and the Royal Family have long been known to regard the efforts of those who are most active in the conduct of the unceasing battle of the medical profession against disease and suffering; while the auspicious occasion was further graced by many distinguished representatives of other forms of learning. The Marshall Hall prize address by Dr. W. HEAD, on the Afferent Nerves Under a New Aspect, resting as it does partly upon his own labours and partly upon investigations carried out in conjunction with Dr. W. H. R. RIVERS and Mr. J. SHERREN, was in complete accord with the best traditions of the society in being a paper in which conclusions of far-reaching importance were based upon an adequate number of carefully selected facts; and the President's reception at the Natural History Museum, to which, as to KEMBLE's acting, "the Graces lent their zone," afforded fitting evidence that even Science regards her triumphs as incomplete until they have been confirmed by the smiles of beauty. It was written of ROBERT ADAIR, a surgeon who flourished when the society was young and whose name would probably be found in the lists of the early members, that he was "the favourite of princes, of fortune, and of women," and the events of the past week go far to show that something of the same kind might be justly said of the society itself. May it long continue both to deserve and to receive such encomiums as those which have now been lavished upon the past 100 years of its existence.

It is one of the privileges of journals to have long memories and those who, like ourselves, can look back into the history of the past will recall at least some occasions on which differences of opinion among the Fellows of the society have been expressed with a force which might almost be said to border upon acrimony. The publication, for example, of a book on ulceration of the cervix uteri, with the stress which was therein laid upon the speculum as an essential instrument of diagnosis, was one of the now almost forgotten events which divided the society into two camps, and which brought large attendances to the meetings. A member of the society vigorously condemned both the new practice and its adherents, whether the latter were members of the medical profession or great ladies who zealously maintained the necessity of the inspections to which their sex were asked to submit. On another occasion the Fellows of the Royal College of Physicians of London assembled in their strength on a ballot evening for the purpose of recording their votes against the admission into the society of a distinguished provincial practitioner who had obtained the degree of Doctor of Medicine from the University of London and who established himself as a "physician" without seeking the sanction of the College. Such episodes, however, were few and transient and the operations of the society as a whole were as cordial in their character as they were eminently advantageous to all who took part in them. The papers read were usually founded upon long and extensive experience or upon carefully conducted research, and the society resembled the House of Commons in this, that the possessors of every kind of knowledge were to be found within the ranks of the customary audience. No speaker could fall into grave error without eliciting reply from someone who was both capable of correcting him and not unwilling to undertake the task; and hence the debates afforded lessons of caution to all who took part in them. It frequently happened that communications read before the society contained the first notices of new discoveries, some of which did not at the time receive full recognition of their importance, and among these was the paper containing the earliest description of embolism as a pathological process. The author, it was said, described how little pellets of fibrine could be shot off the valves of the heart along the arteries until they were arrested by diminished calibre and so blocked the vessels containing them as to deprive tissues on the distal side of their blood-supply. The Fellows, it was added, were immensely interested in the paper, and when it was finished they "laughed and cheered." Such demonstrations, if not stopped, were at any rate suspended during the reign of one very distinguished President. Dr. JAMES COPLAND, the author of the great Medical Dictionary, took the chair in 1853, and the first paper read after he did so was applauded by the audience. He instantly rose and condemned the practice in the strongest terms. The Fellows of the society, he said, were not actors but men of science, bound to listen to each other's opinions with respect, and they should be as incapable of the indecorum of applause as of the analogous indecorum of exhibiting displeasure. During the whole of Dr. COPLAND'S presidency the practice of applauding was abandoned. That of exhibiting displeasure at Berners-street commonly took the form of a gentle tapping with the heels, started at some single point, but certain to spread if it appealed to the general sympathies, and equally certain, before it had been long continued, to drown the voice or to overcome the resolution of the boldest or most persistent speaker.

The presidential chair of the society has naturally been a sort of blue ribbon of the profession, rendered every year

more valuable by the eminence of those by whom it has been held, and always conferred alternately upon a physician and a surgeon. The President was not only an eminent practitioner but was usually selected from among men who had done good work in subordinate offices and whose known attachment to the society afforded security that they would be watchful guardians of its honour and of its interests. In this respect, indeed, they were all alike, but successive presidents have entertained very different ideas as to the share which they should take in the proceedings of the ordinary meetings. Some have considered it a duty to open every debate and to direct attention to what they conceived to be the chief questions raised by the paper which had been read. Others have contented themselves with taking the formal vote of thanks usually accorded to the author of the paper; and some have either intervened in the debates or kept silence as they might feel disposed. Dr. COPLAND usually spoke late and usually said that everything important either in the paper itself or in the remarks of the speakers would be found in such and such articles in his Dictionary—an assertion which was completely justified more often than might have been supposed. The great event of the presidential year was, of course, the address upon first taking the chair, which often included a retrospective glance at the work of the preceding session, brief obituary notices of deceased Fellows, and some kind of exhortation concerning the future—exhortation which sometimes conducted an unskilled orator into verbal snares or pitfalls from which escape was difficult or impossible. A president once expressed his hope that during the forthcoming session the working bees of the society would put their shoulders to the wheel, and his successor surpassed this effort by the hope that these same bees would unite with him to cull fruits in the stream of science. Such speeches were, of course, merely examples of what may happen when men even of conspicuous ability attempt work to which they are unaccustomed and from the requirements of which their minds have been diverted by other and more important pursuits. On the other hand, there were always Fellows of the society to whose periods it was a delight to listen, and the measured cadences of PAGET or of SAVORY would often be almost as powerful as their facts and arguments in giving character and distinction to a debate. As we think of those days the worthies of the past crowd upon the mental vision. ALDERSON, an exemplar of grace and courtesy; ADDISON, profuse of gesture, original, and didactic; BRODIE, already becoming in our day an infrequent visitor; GULL, tersely described as "a strenuous bird" and looked upon as a coming man at Guy's; ORMEROD, who then reported the proceedings of the society for THE LANCET and whose career of promise was cut short by cholera before Sebastopol; and ANDREW CLARK, steadily laying the foundations of his reputation in the pathological laboratory of the London Hospital. As there were strong men before AGAMEMNON, so there will be worthy successors of the heroes of the past, and the history of the society justifies it in looking forward to another century of usefulness and of success, if not in its present form then as an important constituent of a united Academy of Medicine. The attempt to federate has been vainly made on previous occasions but the present time seems undoubtedly to be propitious not only for its renewal but for carrying such a desirable project into accomplishment.

The Hygiene of Flat Life.

THE ultimate results of social changes can seldom be exactly predicted. The advocates of any social reform usually paint in vivid colours the Utopian conditions which will prevail if their schemes are carried out, but when the reforms so earnestly recommended have been introduced the looked-for benefits are often woefully less visible than had been prophesied; and not only so but new, unexpected, collateral results, by-products of the reform as we may call them, are found to have developed and the last state is in only too many cases but little improvement on the first. The conditions under which very many of the poorer classes live in all large towns are truly deplorable. The overcrowding is often extreme. Many will remember the late Mr. MONTAGU WILLIAMS's anecdote illustrative of this. When he was the magistrate at the Whitechapel police-court a case came before him of a dispute ending in a free fight. After much questioning he found that in one room five families lived, one family in each corner and one in the centre, their respective domains being delimited by chalk marks. All went well until the family in the centre of the room decided to take in lodgers and this attempt at overcrowding was forcibly resented by the more particular dwellers in the corners. We do not know how far Mr. MONTAGU WILLIAMS was ready to vouch for the exact accuracy of his humorous story, but that such a tale should be considered a fair comment upon existing conditions goes far to show that in many districts of London the overcrowding is intense. To remedy this evil the energies of philanthropists and municipal bodies have been directed. Overcrowded quarters have been cleared and in place of ill-designed and ill-built houses lofty structures have been erected according to the latest teachings of hygiene.

The dwellers in these sanitary buildings are seldom the inhabitants of the old unwholesome tenement houses which have been swept away. The appreciation of these new "dwellings" is sometimes so great that the owners of them have the power of selecting amongst the applicants those whom they consider to be the most suitable, and then it comes to pass that the new tenants belong as a rule to a rather higher class than those who have been displaced. We do not wish for one moment to minimise or to detract from the benefits resulting from the erection of workmen's dwellings. We are sure that many hard-working people are able to obtain rooms with many hygienic appliances and fittings at a weekly rent lower than they would have had to pay if these "improvements" had not been carried out. So far so good, but there are some by-results of this hygienic building which were doubtless unintended by the well-meaning philanthropists who promoted their establishment but which are of sufficient economic importance not to be ignored. In order that the expense of the rooms of these model dwellings should not be excessive the rooms are made very small and as low in height as the average size of the people will admit, so that the cubic air

space per inhabitant is by no means so great as we might expect from the hygienic protestations of the promoters. Not long ago the QUEEN after inspecting some model dwellings pointed out the need for cupboards, but one of the inhabitants remarked on hearing of this suggestion, "We've got the cupboards already, what we really want are rooms." When these buildings are erected by money bequeathed for the purpose, and when their rents are not expected to yield a dividend the chief objection to be urged against them is that, according to an interesting economic law, they tend to lower wages, though it has also to be remembered that they are not inhabited by the class for whom they were primarily intended. When, however, these model dwellings are erected by municipal bodies the case is altered, as for the most part they do not repay in rent the cost of building, so that the balance has to fall on the rates. This is one cause, amongst many others, of the recent rise in rates in London and other large towns. Now every increase in rates has a very direct effect in increasing the expense of living, for no personal economy on the part of a householder can affect the amount of rates which he has to pay. A natural consequence of this increase in rates has been the extension of the numbers of those who live in flats. We do not suggest that the increase in the rates is the only cause, or even the chief cause, but it certainly is a cause and not the least powerful cause, in causing the present migration of Londoners of all classes into flats. Now in flats we find a massing together of large numbers of people in circumstances that are often much open to criticism, so that one result of the efforts of municipalities to improve the hygienic conditions under which some of the poorer inhabitants live has been to deteriorate the hygienic conditions of some of those who are better off. The view that flats are not so hygienic as ordinary dwelling-houses is very generally accepted, but at a recent discussion at the Royal Sanitary Institute on the hygiene of flat life opinions were somewhat divided. The late Dr. FARR used to say that the mere density of the population increased the mortality but the statistics based on the returns at present available do not support this view. These statistics, however, are merely mortality statistics and give us no indication of the amount of sickness not immediately leading to death. To take an instance, there is a widespread belief amongst those who are qualified to judge that for servants flat life is especially unwholesome, but this harmful effect would not show itself in any mortality statistics. If we may judge from death returns servants on flats never die. In a flat there is no accommodation for a sick servant. Therefore, though in a flat a servant may fall ill or be permanently damaged in health by her stay there, yet we shall see no sign of it in the returns of the Registrar-General

The main hygienic defect of the flats is the absence of provision for through ventilation. The great price of the land on which flats are built requires that the buildings shall be high and closely packed. Thus it follows that many of the rooms look upon inclosed air "wells," where a column of air remains almost stagnant from day to day. The staircases and corridors are also equally guiltless of circulating air. Attempts have been made by the architects in some cases to provide for thorough perflation of air by openings at the base of the air wells, but in several instances it has been found that these air inlets have been bricked up or glazed because someone has complained of the draught. The difficulty of providing for through ventilation is the supreme difficulty of the hygiene of flats and it requires to be taken into careful consideration. In many ways the modern flat is a better constructed and more conveniently planned dwelling than the house, but the conditions of its erection compel, or well-nigh compel, stuffiness. It is impossible to prevent the increase in the number of flats. In all large cities flats are a necessity from the appreciation of the ground value of the land. In Rome, the most ancient of the present-day large cities, flats have existed to a large extent for centuries and if the idea is well founded that Rome had in the time of the Emperors a population of over 1,000,000 the existence of flats in the Eternal City may be considered as proved for that epoch, and if so they have existed there for nearly 2000 years. Flats being inevitable, it would be well to insist on the provision of through ventilation, as the most important factor in the improvement of their hygiene.

The Session of the General Medical Council.

THE eighty-first session of the General Council of Medical Education and Registration began on Tuesday last. In his opening speech Dr. MACALISTER, the new President, outlined a businesslike programme of modest dimensions, a fact which is of good omen. The scope of the duties of the Council is so large, and so much of its work is associated with public interests of the widest sort, that one of the principal difficulties before it is to decide what are the subjects that require special attention. There are but two sessions in the year, although on one or two occasions a special session has been held, and the cost of each is so considerable that it is out of the question that the Council should meet more frequently. Moreover, even if money were of no consideration, it must be remembered that the members of the Council are for the most part busy men whose time is charged and surcharged with public and private duties, so that in many cases they sit at the Council board only with considerable sacrifice of valuable time. Two sessions, however, each usually amounting to less than a week, hardly suffice for dealing with all the vast number of questions that may arise. The relations between the medical profession and the public are regulated entirely by the Council, the maintenance of an accurate Register and the purification of that Register from wrong persons is also its duty, while, perhaps most important of all, the standardisation of medical education is also in its hands. When we remember the vast field that such various functions must offer for discussion we see that a fortnight (or less) in the year is not an excessive amount of time for the public deliberations of the Council, even though much of the real work is done by committees, by inspectors and visitors, and by the President in the intervals between the sessions. A short programme pointing rather to action than to oratory is consequently welcomed by the medical profession, who are also beginning to take note that their interests are not best served by the members who make the most or the longest speeches.

The President was able to make a very satisfactory statement with regard to the funds of the Council. At the end of 1903 the total deficit of the Council was a little over £2000 and at the end of 1904 it is only a little over £200, this greatly improved position being attributable not to any increase of ordinary income but to greater economy of expenditure. Whether the pecuniary situation can be improved until the point of equilibrium is reached, and whether such equilibrium, if reached, can be maintained, seem to us rather doubtful, but the results of economy and orderly administration are very marked, and it must be a great relief to the members of the Council, and to all those of the medical profession who take an interest in the work of their disciplinary body, to feel that for a time at any rate the cloud of bankruptcy appears to be dispelled. It is more than an undignified thing that the General Medical Council should be out at elbows. It is a dangerous position of affairs, because it is inevitable that the policy of the Council should to a certain extent be guided by the money at its disposal. Take, for example, the registration of the medical student. Two sessions ago the General Medical Council decided to promote a Bill in Parliament for the compulsory registration of all medical students upon payment of a small fee. Doubtless the Council was swayed in its decision by the belief that, as it had under its charge the medical education of the country, it ought to have official control over the educational career of every student from the time that he becomes a student to the time when he obtains the right to admission upon the professional roll. But, in addition to the very natural feeling that it was a fit thing that the Council should insist upon registering all students at the beginning of their careers, the Council was also influenced by the knowledge that the institution of a small fee for registration would result in raising an annual sum of money sufficient to turn the vexatious and recurring deficit into a genuine though insignificant surplus. Certain of the educational bodies proved, however, to be strongly opposed to the Bill. They considered it an infringement upon their rights with regard to their students, and when the Council found that the projected measure bade fair to be unpopular it was dropped. Many who are interested in medical politics regret that the Council did not feel strong enough to persevere in its intention, but undoubtedly the Council would have enjoyed greater advantage in opposing the resistance to its views had it been inspired solely by a wish to consolidate the scheme of medical education and not at all by a hope of raising the wind—if the colloquialism may be pardoned us.

An important question which the General Medical Council will soon assuredly have to look into is the disorder that exists with respect to medical titles, and the matter was brought forcibly to the attention of the Council on the first day of the present session. It is not so very long ago since a barrister, who ought to have known better, alluded to a Licentiate of the Society of Apothecaries of London in open court as "possessing the lowest medical degree." The barrister in question, not, of course, either a very well-informed or a very civil person, misled by the title of "licensed apothecary," seems to have thought that the medical witness was not a physician or a surgeon, although, as is well known to all our readers, the Licentiates of the two Societies of Apothecaries are distinctly stated at the beginning of the Medical Act of 1886 to be qualified to practise medicine, surgery, and midwifery. A large number (767) of Licentiates of the Apothecaries' Society of London, feeling that some error as to their position may be common, petitioned the General Medical Council at the opening of the session to have their official designation changed from "Licentiate of the Society of Apothecaries of London" to "Licentiate in Medicine, Surgery, and Midwifery of the Society of Apothecaries of London," and their petition was sympathetically received by the Council as a whole. And sympathy is all that the petitioners will get for the present and all that they can expect, for an Act of Parliament would be required to bring about the change of title which is desired. But the subject of medical titles which has thus been introduced to the notice of the Council is one that is bound to ask for further attention. The anomaly by which a man is called an apothecary when he is, as a matter of fact, qualified to practise medicine, surgery, and midwifery is only one of numerous irregularities in medical titles. Why is the main body of the Royal College of Surgeons of England called differently from the main body of the Royal College of Surgeons of Edinburgh or in Ireland? Why do some bodies object to their Licentiates using the title "doctor" while others permit it? The public is naturally misled into thinking that a "Member" is better than a Licentiate, or that a "Licentiate" who styles himself without apprehension "doctor" is superior to a Licentiate who does not use the popular title. These ideas of the public reflect unfairly upon many medical men, and the right of all registered medical practitioners to use as a matter of course the designation of "doctor," by which the public always address the practitioner, will be pressed hardly in the near future.

Annotations.

"Ne quid nimis."

MEDICAL CERTIFICATES IN RESPECT OF SCHOOL ATTENDANCE.

A CORRESPONDENT has asked us whether it is consistent with ethical conduct for a medical man to accept an appointment from the education committee of a county council under which he will have to visit and to examine children the patients of other practitioners and to give medical certificates in respect of their fitness or otherwise to attend school. The question is not quite a simple one, though the answer is that, as a rule, such appointments must be very unfortunate. Take, for example, the position in the county of Kent. In 1904 the new education committee of the Kent county council circularised the medical profession of the county asking them to undertake to visit, to examine, and to certify children for school board purposes for a fee of 1s. per head. The proposal was naturally not received with much enthusiasm. In the Sevenoaks division of the British Medical Association, for example, two men out of 20 or so were found ready to accept such an offer, but representations were made to them which induced them to withdraw their acquiescence. A formal letter of protest at the offer of such

fees was then sent to the county council committee and the matter was for the time being dropped. Our correspondent does not say what fees have been offered in the instance to which he alludes, but if they were such fees as were offered last autumn by the Kent county council we think that they should not be accepted. The question of fees is not the only one at stake. A dangerous source of professional friction will be created if these semi-official posts should be filled by medical men simply to save the pocket of public bodies. The Kent county council sought to get its work done at low fees and failed. Other bodies, and for aught we know the Kent county council again, may now try by offering the work to one practitioner in each district to get out of paying reasonable fees to the medical profession as a whole, and medical men should not assist such tactics. Awkwardness must be produced when one medical man is placed in a semi-official position so that it may be his duty to interfere with the patients of his *confrères*. In cases of summons for non-attendance, if the usual medical adviser, probably inspired by a more intimate knowledge of the patient, did not agree with the semi-official diagnosis, the parent would obtain medical evidence supporting his view against the view of the school board, and most undesirable conflicts of expert testimony would ensue. There is no need for educational authorities to create a special appointment for a medical man to sign certificates. All that is wanted is that the medical man in attendance upon the sick children should be remunerated for giving certificates. A question asked in the House of Commons by Mr. Rowland Hunt on Monday last showed that the Board of Education did not consider a medical certificate to be the only valid defence for non-attendance at school, but surely there are not many magistrates who, save in exceptional circumstances, would accept any other certificate.

SPRING CLEANING AND COLD WEATHER.

A COLD "snap" in May is particularly unfortunate in regard to household affairs, since most industrious housewives decide to have the "spring cleaning" process finished before the dawn of "the merrie month" and there is not a more decisive ukase in domestic affairs than that which forbids the reversion to coal fires after spring cleaning is done. It may be presumed that no such prohibition would obtain in the house in which electricity or gas is used for heating purposes. The considerable, if not actually harmful, inconvenience which the inmates of a house suffer in these circumstances is, in fact, tolerated because the use of coal fires would undo the work of the spring-cleaning process. They are to sit shivering in the rooms because the lighting of the fire would bring in its train a recrudescence of the very kind of dirt which vernal labour has taken so much pains to remove. We see here a powerful argument in favour of the abolition of the coal fire altogether and the adoption of a gas fire or electric heater in its place. We also have no hesitation in declaring that so long as the English climate exhibits sundry ficklenesses of the very disagreeable kind which we have just recently experienced, the cold having been as intense as anything experienced during the winter, the present system of spring cleaning, or cleaning in spring, is based on a very inconvenient and dangerous postulate. If at any rate spring cleaning means that the maintenance of a comfortable warmth in the house is precluded, that the household must shiver because cold weather happens to prevail on the conclusion of the process, then surely the institution deserves to be abolished as contrary to common sense and as opposed to the requirements of health. The slavish adherence of the housewife to principles of cleanliness is excellent in its way but over-zeal in this direction might well be fraught with serious issues to the health of the family. Either the rule about fires should be relaxed or else "spring cleaning" should be made to give way to "summer cleaning" or postponed until a more convenient and congenial season when cold "snaps" are far less likely to occur.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.

THE preliminary programme of the forthcoming congress of the Royal Institute of Public Health, which is to be held in London from July 19th to 25th, has just been issued. The congress will be held in King's College and at the Polytechnic, Regent-street, London, W. In the section of Preventive Medicine, which will be presided over by Sir James Crichton-Browne, there will be discussions on the Medical Inspection of School Children, the Teaching of School Hygiene, the Waste of Infant Life, and Municipal Milk Depôts; while in the section of Bacteriology and Chemistry, the President of which is Professor R. T. Hewlett, the Bacteriological Examination of Milk, Water, and Sewage will be discussed. Professor John McFadyean is the President of the Section of Veterinary Hygiene; Colonel A. Crombie, I.M.S., of the Section of Tropical Medicine; and Lieutenant-Colonel R. H. Firth, R.A.M.C., of the Section of Naval and Military Hygiene. Special arrangements have been made to visit various institutions under the control of the Metropolitan Asylums Board and there will be an exhibition of sanitary and educational appliances. The social arrangements include various excursions to Henley, Windsor, and Hatfield, visits to places of interest in the metropolis, such as the Mint, the Bank of England, and Greenwich Observatory, and a garden party. The subscription for membership of the congress is £1 1*s.* and for ladies accompanying members or delegates 10*s.* 6*d.* The President of the congress is the Marquis of Londonderry and the honorary secretary is Mr. James Cantlie, from whom further information can be obtained at the Royal Institute of Public Health, Russell-square, London, W.C.

CORONER'S INQUESTS IN LIVERPOOL.

THE official relations of coroners to practitioners of medicine are not in all cases characterised by the courtesy and good feeling that should exist among members of the learned professions: all readers of THE LANCET are well aware of this. In particular, as regards that important function which has for its object the discovery of the cause of death by violence, or in suspicious circumstances, it is unfortunately true that certain coroners occasionally assume an attitude towards medical witnesses which is but ill calculated to accomplish the object in view. A case has recently occurred in Liverpool where a man died in a fit some considerable time after receiving an injury. The medical man who saw him, believing that the injury had occurred some two years before death, did not mention the injury in his certificate; but later, finding out that the injury had been received within a year of the death, he made a communication to the widow which led to an inquest. At the inquest the medical man said that he had followed the usual belief that there was no necessity to mention an injury in the death certificate if the patient had survived that injury for a year unless the connexion between the injury and the ultimate death were obvious. At this point a wrangle is reported to have occurred in which the coroner, the medical man, and two solicitors took part, and which, as might have been foreseen, was not calculated to enhance either the dignity or the efficiency of the coroner's office. The coroner appears by the newspaper reports to have said that the medical man in giving his view, which to us appears a perfectly reasonable one, "was talking nonsense,"

adding that "according to the rules of the Registrar-General if an injury happened ten years before death the fact should be shown in the certificate." The coroner is reported to have made this statement in his magisterial capacity and it was incumbent upon him to make sure of the accuracy of his assertion. As far as we know the only official communication hitherto addressed to medical men from Somerset House which bears on the matter consists of a printed circular, not of rules laid down, but of suggestions courteously offered to practitioners of medicine as to the manner in which causes of death should be returned for entry in the Registrar-General's reports. Having read a copy of that document we fail to find there any rule such as that alluded to by the coroner. We trust therefore that he will take an early opportunity of informing the medical profession of Liverpool on what authority his statement was made as to rules laid down by the Registrar-General. But even if that officer had made such a rule we have yet to learn what authority the Registrar-General possesses to regulate the conduct of medical practitioners beyond requiring them in all cases to fulfil the statutory obligation to certify the cause of death of their patients. After all, the medical man is, and always must be, the judge of the cause of death. He is not a detective officer, and if, amid the manifold worries of medical practice, he occasionally omits to record in his certificate a mere hearsay statement which a coroner may desire to know but which in his own judgment is irrelevant to the case before him it would manifestly be unjust to censure him for the omission. In the present case we cannot see that the coroner had any just ground for his strictures. Shortly after the death of his patient the medical man apparently filled up the certificate "to the best of his knowledge and belief." His *bona fides* is evident from the fact that immediately on becoming aware that an injury had preceded the fatal fit by a less interval of time than had been represented to him on taking charge of the case he brought the matter under the coroner's notice. The medical man's evidence ought to have made it quite clear to the coroner that no irregularity had been committed and that the course of justice had not been endangered in any way. Possibly he missed the significance of the evidence by not being sufficiently well up in ordinary scientific knowledge, but this does not give him the right to tell the medical man that he was talking nonsense.

OZONE IN PUBLIC LAVATORIES.

THERE is no sweeter or more effectual deodoriser than ozone and yet how rarely is ozone employed for this purpose in practice. The peculiar and refreshing smell of ozone is infinitely preferable to the sickly smell of chlorine compounds and tar acids, although these smells may serve to give the public some confidence that where such smells prevail there must necessarily be no risk of infection. In many cases this confidence is undoubtedly misplaced since tar oils in particular which smell strongly have practically little or no germicidal action, whereas the true tar acids, such as carbolic acid and cresylic acid, have a comparatively feeble smell but are very active disinfectants. After all, the action of "chloride of lime" as a disinfectant depends chiefly upon its decomposition by the carbonic acid of the air (which is not a very large quantity) into carbonate of lime and hypochlorous acid. The production of the effective disinfecting compound hypochlorous acid is therefore small, though of course it is steady. The smell of tar compounds, naphthalene tablets, or chlorine powders when coupled with that of the ammoniacal emanations of public lavatories is very offensive to most people. Far better, and certainly much more agreeable for the purpose, would be ozone, to which, moreover, ammoniacal gases readily yield. Ozonisers are so easily procured now and are so simple in construction and in action that it is a matter of considerable surprise that they are not more frequently applied for the purpose of sweetening air befouled with offensive smells. Nor does ozone merely mask a bad smell; in all probability it destroys it. Again, most public lavatories are provided with an installation of electricity for lighting purposes and it would be a very simple matter to utilise a fraction of the current for actuating a battery of small ozonisers. The suggestion, too, if adopted would spare the sewers from the possible corrosive action of certain disinfectant compounds and from blocking by insoluble powders and perfectly futile soap disinfectant tablets.

SUBACUTE PERFORATION OF THE STOMACH.

IN acute perforation of the stomach the gastric contents are extravasated into the general peritoneal cavity and general peritonitis is produced. But in certain cases of perforation the opening is very small and becomes plugged by omentum or by fibrin and only local peritonitis results. Cases of this form of perforation are not well recognised. In the *Boston Medical and Surgical Journal* of May 4th Dr. F. B. Lund has published an important paper on this condition which he terms "subacute perforation of the stomach." Under careful treatment the fibrinous adhesions may become organised into fibrous tissue and the ulcer may heal. On the other hand, the adhesions may be digested and the peritonitis may spread and after two or three days may develop rapidly and prove fatal in a few hours. Finally, a chronic abscess may form. The symptoms of subacute perforation of the stomach differ from those of acute perforation in being less intense and in not being followed by collapse or general peritonitis. In a patient, who may or may not have had symptoms of gastric ulcer, sharp stabbing abdominal pain, with or without vomiting, suddenly occurs and is followed by localised tenderness and rigidity. Under treatment the tenderness and rigidity pass off after several days. When the surgeon sees the patient the attack is generally subsiding and the question of diagnosis arises. The locality of the pain and tenderness do not give much aid. If the ulcer is situated on the anterior surface of the pylorus the peritonitis glues the latter to the liver. The pain and tenderness are so near the gall-bladder that it is impossible to exclude acute cholecystitis. The history of a previous attack of biliary colic or the character of the pain and its relation to meals may respectively point to gall-stones or to gastric ulcer. But the diagnosis can often be made only after operation. Dr. Lund relates the following three cases. A lad, aged 20 years, was admitted into hospital on Oct. 3rd, 1903. For about a year he had suffered occasionally from epigastric pain and for six months he had always had pain after meals. A week before admission while boxing he was struck in the right hypochondrium, where he had slight pain until the day before admission, when he was seized with violent griping pain in the epigastrium which spread all over the abdomen. He vomited after taking warm drinks and had a chill lasting an hour. He walked to the hospital. The temperature was 100·3° F. and the pulse was 60 and the skin was slightly yellow. The abdomen showed no distension; there were slight general rigidity and marked rigidity and tenderness in the region of the gall-bladder. No mass could be felt. The leucocytes were 16,000. Under rest in bed the tenderness and rigidity disappeared. Gall-stones were diagnosed. On Oct. 7th an incision was made through the upper part of the right rectus muscle and the gall-bladder was found to be normal. On opening the peritoneum an excessive quantity of clear dark peritoneal fluid was found. The appendix, which was chronically inflamed and adherent to the outer side of the

colon, was removed. But it was thought that the fluid in the peritoneum was not explained. Further examination showed that the pylorus was connected with the under surface of the liver by fresh adhesions. Posterior gastro-enterostomy by the method of Moynihan was performed. The patient regained perfect health and lost all gastric symptoms. In the second case a man, aged 40 years, was seen in consultation one night. For years he had suffered from indigestion and for several months his stomach had been washed out but he did not improve. At 1 P.M. on the day on which he was seen he got out of bed and went to the door to look out and was seized with severe abdominal pain. He vomited and crawled back to bed. At 3 P.M. he was seen by a practitioner who found a pulse of 90 and a temperature of 101°F., with board-like rigidity and general abdominal tenderness, which was especially marked in the epigastrium. There were no signs of shock. A quarter of a grain of morphine was given. At 9 P.M. he had improved, the spasm was a little less, and he seemed more comfortable. At 11 P.M., when Dr. Lund saw him, he was pale and anæmic but did not show the peritoneal facies or marked shock. There were distinct spasm and tenderness in the epigastrium which shaded off into the other regions of the abdomen. The tongue was moist, the pulse was 90, the temperature was 101·4°, and the abdomen was retracted. As the vomiting had not been repeated, the spasm had decreased somewhat, the pulse was not increasing, and the patient was more comfortable, it was thought that a perforation had occurred but was walled off from the general peritoneal cavity. Operation was therefore deferred until the following morning when the patient's condition was about the same. The pylorus was found connected by fresh adhesions to the under surface of the liver. Fresh flakes of fibrin extended across the greater part of the anterior surface of the stomach, especially along the lesser curvature. There was an excess of serum in the peritoneal cavity. Posterior gastro-enterostomy was performed. Solid food was taken on the fifth day and after two weeks the patient was eating more than he had done for years and without any distress. Three months later he had gained much weight and was in excellent condition. In the third case the patient was a man, aged 50 years, who was admitted to hospital on June 3rd, 1903. He had always been constipated, his bowels acting only once or twice a week. For five weeks he had had epigastric pain and for three days it had been severe. The abdomen was distended and there were dulness, tenderness, and spasm in the left hypochondrium. An enema brought away large masses of scybala and he became more comfortable. On the 10th there was still a tender mass in the left hypochondrium and an incision was made over it. The stomach was found adherent to the anterior abdominal wall and much thickened. On separating it a perforation about a quarter of an inch in diameter was found near the cardia. After walling off the ulcer was infolded and posterior gastro-enterostomy was performed. Recovery followed. These cases show well that the location of the pain and tenderness depends on the position of the ulcer. Dr. Lund recommends that in such cases posterior gastro-enterostomy should be performed without, if possible, breaking up the protective adhesions.

THE OPTICAL CONVENTION.

THE Optical Convention for 1905 will be held on May 30th in the Northampton Institute, Clerkenwell, E.C., under the presidency of Dr. R. T. Glazebrook, F.R.S., and among the vice-presidents are Lord Kelvin, Lord Rayleigh, the Earl of Rosse, Sir Howard Grubb, and the Astronomer-Royal. The aims of the Convention are to increase the interest taken in optical science in this country, to promote an improvement in technical education in optical matters, and to aid the development of the British optical industry. The programme of the Convention includes meetings for papers and discussions, which will be subsequently published in a volume, and an exhibition of optical and scientific instruments of British manufacture, with a catalogue which is intended to serve as a work of reference illustrating the productions of opticians in this country. Among the papers and the discussions are promised contributions by Lord Rayleigh on the Polishing of Glass Surfaces, by Professor Poynting on the Parallel Plate Micrometer, and by Professor Schuster on Spectroscopic Optics. The subjects dealt with include the design of optical instruments, the measurement of aberrations, diffraction in optical instruments, and various questions connected with photography, photometry, ophthalmometry, and the like. The Earl of Rosse, Lord Blythswood, and Sir William Abney are among those who have promised to preside at the sectional meetings.

FRESH AIR AND THE BURGLAR.

THE principles of living as much as possible in the fresh air should, of course, extend to the bedroom, although there is a common but erroneous impression that night air is unsuitable, if not dangerous, for respiration during sleep. As a matter of fact, night air is generally purer than the air by day, since it is freer from suspended particles of dust—bacteriological entities which arise from the disturbance of the day's traffic. Night air is, moreover, comparatively free from the pollutions of the chimney but it is naturally cooler than in the daytime and often deposits moisture, especially on an unclouded night when the radiation of the earth proceeds rapidly. Such moisture is, however, deposited on rapidly cooling surfaces and is not likely to be formed in the bedroom. The sleeper is, as a rule, adequately protected against changes of temperature by the powerful non-conducting property of the bedclothes and, of course, it is desirable that no part of the body should be directly exposed to a cold draught. There can be no doubt that the inspiration of fresh pure air during sleep considerably promotes the well-being of the individual and gives him a much stronger sense of recuperation than when a supply of fresh air is excluded. Oxidation and the destruction of toxic products are encouraged in the former case, while in the latter the impure products of respiration may be breathed again and again. Many persons who are professed followers of the doctrine of fresh air are precluded from carrying their convictions on this point into practice at night because they fear that leaving windows open will give an easy opportunity to the burglar. And in many houses, especially in the suburbs and country, such is undoubtedly the case. It is a pity that such fears tend to prevent the healthy policy of sleeping in fresh air from being carried out but there should be no difficulty in overcoming them. The fact that the majority of persons sleep during a third part of their lives enhances the desirability of recognising the importance of the admission of fresh air into bedrooms.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, HAMPSTEAD AND NORTHWOOD.

A COURSE of post-graduate lectures and demonstrations, free to members of the profession and medical students, will be held at the central out-patient department, 7, Fitzroy-square, London, W., on Thursdays, at 5 P.M. Dr. George A. Heron delivered the introductory address on May 18th and on May 25th Dr. J. Edward Squire lectured on Difficulties in the Diagnosis of Chest Affections. The subsequent lectures and subjects will be as follows: June 1st, Dr. George F. Johnston on the Pathology and Treatment of Asthma;

June 8th, Dr. F. Parkes Weber on Pneumothorax in Tuberculous Subjects; June 15th, Dr. T. N. Kelynack on Cases of Arrested and Advancing Pulmonary Tuberculosis; June 22nd, Dr. T. D. Lister on Pre-Tuberculous Affections in Early Life; June 29th, Dr. F. W. Price on Aortic Stenosis; July 6th, Mr. James Berry on Foreign Bodies in the Air-passages; July 13th, Mr. Harold S. Barwell on the Diagnosis of Tuberculous Laryngitis in its Early Stage; and July 20th, Dr. Herbert J. Scharlieb on Some Post-Anæsthetic Complications.

THE TRAFFIC IN OLD HORSES.

WE have from time to time[1] protested against the cruelty involved in shipping old broken-down or diseased horses to ports abroad and a peculiarly scandalous case came before Mr. Mead at the Thames police-court on May 16th. The accused was a man named John Ellett. The horse was seen by Inspector W. Rogers of the Royal Society for Prevention of Cruelty to Animals. It was in a float and was apparently suffering great pain. Mr. Ellett on being questioned said that he had sent the horse and that he knew "the feet were a bit rotten." He continued: "I bought it to sell to White for shipment abroad. They fetch a better price there." Mr. Mead, in sentencing the prisoner to one month's imprisonment, said that the whole traffic was a most discreditable one. We quite agree with Mr. Mead; the traffic is more than discreditable, it is disgusting. These wretched animals are mostly shipped to Rotterdam, where their flesh is used as food, and we suspect in some instances returns to this country in the form of sausages or "delicacies" of various kinds. In our opinion the traffic should be made illegal. A little time ago something was done to make it somewhat less revolting by means of a Board of Agriculture order but without doubt it should be stopped altogether.

THE DURATION OF THE INCUBATION PERIOD OF TETANUS: A MEDICO-LEGAL QUESTION.

IN the *Gazette Hebdomadaire des Sciences Médicales de Bordeaux* of April 30th a case is reported which is of considerable importance both from the pathological and the medico-legal standpoints. On April 17th, 1902, a navvy in the employment of a railway company and a comrade were lifting a rail with a crowbar when the crowbar slipped and his little finger was crushed between the crowbar and the rail. Suppuration followed and after being incapacitated for 17 days the man resumed work. About the end of June he had a boil on the knee which prevented him from working for a fortnight. Towards the end of August he manifested symptoms of tetanus and he died on Sept. 17th. His widow brought an action against the company, claiming that the injury to the finger was the cause of the tetanus. The question arose, Could the incubation period of the disease be so long as four and a half months and the tetanus have been due to the injury? As is the fashion in French courts, the judge referred the question to a committee of experts consisting of Professor Ferré, Professor Sabrazès, and Dr. Faguet. They consulted both French and foreign works on tetanus. The ordinary incubation period was given as from five to 15 days, especially by recent writers. But some writers stated that the incubation period might be as long as from 20 to 30 days, several months, and in one case (mentioned by Heineke) even two years. However, these long incubation periods were given at a time when the pathogenesis of the disease was not well known. Thus, in the case in which the period was alleged to be two years the disease was attributed to a bullet wound, but the fact was overlooked that it might have been due to a much later injury, as the patient was in the habit of giving himself injections of morphine. Turning to experiments on animals M. Vaillard and M. Rouget reported in the *Annales de l'Institut Pasteur*, 1892, a case which, however, was unique in their experience. In order to ascertain whether a guinea-pig born of a mother vaccinated against tetanus was immune they injected fluid containing the spores of tetanus. After an incubation period of three and a half months symptoms of tetanus manifested themselves and the animal died. The experts reported to the court that in the present condition of science it had not been shown that the incubation period of tetanus in man could be as long as four and a half months and that a relation of cause and effect had not been shown to exist between the injury to the finger and the attack of tetanus. Judgment was given against the plaintiff.

[1] THE LANCET, Dec. 3rd, 1898 (p. 1492); Feb. 16th (p. 495); April 13th (p. 1095) and 27th (p. 1219), 1901; and April 11th, 1903 (p. 1045).

BRITISH DENTAL ASSOCIATION.

THE twenty-fifth annual meeting of the British Dental Association was held at Southport on May 20th, 22nd, and 23rd. The report of the representative board showed that the membership of the association continues to increase, the number now standing at about 1400. Reference was also made in the report to the appointment by the Admiralty of three dentists to the navy and regret was expressed that the army authorities had not been permitted to increase their dental staff, the blame apparently resting with the Treasury. The address of the new President, Mr. T. Gaddes, was full of interest. He drew attention to the great increase in the number of persons practising dentistry unregistered and he gives the following figures: "Within the area of the North Midland branch there were in 1899 125 unregistered persons practising dentistry. In five years (1904) the number had increased to 303. In Leeds alone there were 16 in 1899 and over 40 in 1904." This condition is, as he truly states, due to "the most regrettable state of the law as to practice." With regard to dental education he expresses the hope that no impediment will be placed in the way of students for the dental qualification and considers that the present curriculum must not be extended or the examination made more severe. The need of efficient dental services for the poor would, he considers, be best met by the establishment throughout the country of provident dental aid associations, guilds, or dispensaries. A considerable portion of the address was devoted to the prevalence of caries of the teeth and its results and the teaching in the elementary schools of oral hygiene was advocated.

"CANCER BODIES" AND NORMAL REPRODUCTIVE TISSUE.

WHEN, in a communication to the Royal Society in 1903, Professor J. B. Farmer, Mr. J. E. S. Moore, and Mr. C. E. Walker described the resemblances which they had discovered between normal reproductive tissue and the tissue of malignant growths their observations were confined to the peculiar forms of nuclear division common to these two tissues. The special points of resemblance recorded were subsequently confirmed last year in the laboratories of the Imperial Cancer Research Fund by Dr. E. F. Bashford and his fellow workers. In a communication to the Royal Society on May 11th of the present year Professor Farmer and his two collaborators describe a striking resemblance, extending to minute points of detail, existing between "Plimmer's bodies," which have been regarded as cancerous products, and certain normal constituents of the cells directly concerned in spermatogenesis. As is well known to those familiar with the literature of the subject, "cancer bodies" have frequently been observed by different investigators and they have been interpreted as representing various

parasitic organisms. The writers of the paper, the text of which will be found in another column, bring forward weighty evidence against such a view. They maintain that the bodies in question are strictly analogous to, or identical with, those occurring in the normal course of spermatogenesis. The appearance of sporulation which has favoured the hypothesis as to the parasitic nature of the bodies is shown to exist as a definite stage in the protoplasmic structure of the normal reproductive tissues in which the complete series of events is clear and is susceptible of no misinterpretation. Whilst the writers regard the structures in question, whether occurring in malignant or in reproductive cells, as identical, they are careful to point out that they do not on this account extend this identity to cover the nature of the cells themselves. They still hold, as they have always maintained, that there exists a similarity between reproductive and malignant tissues and they adhere to the term "gametoid" as expressing the resemblance, whilst also emphasising the differences. The new discovery presses the similarity still closer, but the writers are inclined to see in it evidence of the maintenance in the one case of a primitive type and in the other case a reversion to such a type.

PUBLIC HEALTH IN HONG-KONG.

IN the introductory paragraph of his report on the health of Hong-Kong during 1904 Dr. Francis W. Clark, the medical officer of health, mentions that the district under the jurisdiction of the sanitary board has an area of 29 square miles, a non-Chinese population of 18,900, and a Chinese population of 342,306, making a total population of 361,206. Of the Chinese population 72·9 per cent. are males. The corrected general birth-rate was 4·9 per 1000; among the Chinese alone it was 4·4 per 1000; and among the non-Chinese community it was 13·9 per 1000. The death-rate among the Chinese community was 17·18 per 1000 and among the non-Chinese resident civil population it was 17·58 per 1000. Only three deaths from plague occurred among the non-Chinese community, all of them being Indians. The total number of deaths among the Chinese from malarial fever was 289, while among the non-Chinese it was 12. The total number of cases of infectious disease reported by registered medical practitioners during the year was 758, of which 510 were plague, 129 were enteric fever, 41 were cholera, and 64 were small-pox. Dr. Clark says that owing to the Chinese custom of manuring market gardens with human fæces it is dangerous to eat raw salads in the colony unless grown in a private garden under the immediate care of a European. The highest shade temperature recorded was 91·1° F. on June 26th. The total rainfall was 80·41 inches and the wettest month was August with 27·64 inches. The greatest amount of rain which fell on any one day was 11·13 inches on August 25th.

SYPHILIS AND THE SPIROCHÆTE PALLIDA.

AT the meeting of the Paris Academy of Medicine held on May 16th M. Metchnikoff read an important communication. He reminded his audience that in 1902 M. Bordet and M. Gengou had found a spirochæte in syphilitic chancres and also in many cases in mucous plaques of the throat. But as similar micro-organisms are known to exist in normal throats M. Bordet and M. Gengou did not feel justified in insisting on the specificity of this germ. In order to control the results obtained quite recently by M. Schaudinn and M. Hoffmann upon the pathogenic agent of syphilis M. Metchnikoff undertook some bacteriological researches into syphilitic lesions occurring both in human beings and as the result of experiment In four out of six syphilitic monkeys he found the spirochæte which was distributed indifferently in chancres, mucous plaques, and in serous exudation. In human beings the germ was also found in four cases out of six, both in chancres and in early papules. M. Metchnikoff considers that the search for the spirochæte, which is not found in other cutaneous diseases, will serve as a diagnostic point in syphilis. The germ is difficult to cultivate but M. Metchnikoff hopes to arrive at positive results and to be able to obtain an antisyphilitic "vaccine." Syphilis would therefore appear to be a chronic spirillosis due to the spirochæte pallida.

THE medical officer of health of the Cape Colony states that for the week ending April 22nd the condition of the colony as regards plague was as follows. At East London six cases of plague and at King William's Town two cases of plague were discovered during the week, all the patients being natives. Plague-infected rodents were found at Port Elizabeth, Uitenhage, and East London, and at the latter place two plague-infected cats were also found. In the other districts of the colony no case of plague in man or other animal was found. In Brisbane, Queensland, the last case of plague was reported on April 1st and the last plague-infected rodent was found on April 6th. During the week ending April 22nd one case remained under treatment. At Hong-Kong during the week ending May 20th there were 20 cases of plague with 18 deaths.

IN connexion with the Festival Dinner in aid of the funds of the National Hospital for the Relief and Cure of the Paralysed and Epileptic at the Whitehall Rooms on June 15th, at which Lord Strathcona will preside, a collection has been made amongst the members of the Stock Exchange amounting to £908 9s. Already a sum of over £2000 has been received in response to Lord Strathcona's appeal and it is hoped that a large part of the £5000 necessary to obviate closing wards will be forthcoming.

THE Romanes lecture for 1905 will be delivered by Professor Ray Lankester, M.A., F.R.S., Honorary Fellow of Exeter College, director of the Natural History Museum, South Kensington, in the Sheldonian Theatre, Oxford, on Wednesday, June 14th, at 2.30 P.M. The subject of the lecture will be Man and Nature.

THE annual extra-metropolitan gathering of the Otological Society of the United Kingdom will be held on June 3rd at Manchester. By permission of the Vice-Chancellor the members will meet in the pathological theatre of the Victoria University.

VISIT OF BRITISH PHYSICIANS AND SURGEONS TO PARIS.

A MORNING AT HÔTEL-DIEU.

BY EDMUND OWEN, F.R.C.S. ENG.,
SURGEON TO THE FRENCH HOSPITAL, LONDON.

THOUGH to my certain knowledge Dr. Lucas-Championnière was heavily engaged in dispensing hospitality till late into the night of May 12th, he still held to his appointment for 9.30 at Hôtel-Dieu on the 13th. And, sure enough, as Notre-Dame marked the half-hour the illustrious French surgeon arrived. "Come first into the wards," said he. "I have got some bone- and some joint-cases which I am sure will interest you."

The first case was that of a young man who, till a few years ago, had been a complete cripple on account of extreme double talipes equino-varus of congenital origin. He practically had never walked before he came under the care of Dr. Lucas-Championnière. The plaster casts of his two feet showed how serious the deformity had been. The operation

performed on him had consisted in the removal of all the tarsal bones except the lower part of the os calcis, and it had enabled the feet to come straight and square. Though small and short, they were extremely useful, and the man took great delight in showing them off by squatting down on them and so flexing them to less than a right angle. The result of this operation left little to be desired, and the surgeon said that it had been secured by the great freedom with which the tarsus had been cut away. He remarked that he had once been taken to task by some anatomical friends when he had made the statement that the chief use of the tarsal bones was certainly not for the purposes of progression. This operation was Lund's method carried to an excess. Lund might, indeed he would, have removed the astragalus in each of the feet under consideration, but he would not have gone on to take away with it the adjacent part of the calcaneum and the five remaining bones of the tarsus. Skiagrams showed the bases of the metatarsal bones lying at the front of the os calcis and close beneath the end of the tibia.

Shortly afterwards the surgeon demonstrated the case of a young woman who had had what he called *une jambe à la Polichinelle*—that is to say, a lower limb left useless and deformed with infantile paralysis. First he had excised the knee and thus obtained solid synostosis of the tibia with the femur. Then he had brought the foot into a sound and useful position by removing the chief part of the tarsus as just described. Although this patient was still in bed the case seemed full of promise. Finding how useful a foot could be obtained after a radical tarsectomy, Dr. Lucas-Championnière had adopted that operation in the treatment of several bad cases of flat-foot, but he had been disappointed with it and had now abandoned it in dealing with flat feet.

In a bed at the end of a long ward was a man with a recent fracture of the surgical neck of the humerus which was being treated without splint or apparatus, but by gentle massage. "If the massage gives pain in the treatment of fracture," said the surgeon, "it is doing harm or is being badly done." His experience was that the treatment of such a fracture without retentive apparatus was not only a great comfort to the patient, but it enabled him to recover free movements of the arm at a far earlier period than by the old methods. Dr. Lucas-Championnière then showed a case of fracture of the lower end of the radius which had been treated from the first by massage without splint, and in which the range of movement was highly satisfactory. But I should not be an honest historian if I failed to remark that I found the styloid process of the radius occupying a higher level than it ought to do. Every surgeon knows that the sooner a Colles's fracture is taken off the splint and massage is begun the better; but I certainly think it well to have a splint applied for a week or so, freeing the hand for massage every day. In my experience it is the over-cautious practitioner—the man who fears week after week to leave off the splint—who gets the worst results from this kind of injury.

In the treatment of Pott's fracture without splints Dr. Lucas-Championnière said he had obtained the most surprisingly good results. He had had plenty of these cases, especially in young cavalry soldiers, and these patients were now able to get back into the saddle in about half the time which they used formerly to need. Then he became eloquent upon the French Employers' Liability Act, or whatever it is called. It seemed to be in France much as it is with us; if the workman hurts his hand he is to receive pay for as long as he is unable to use it. The little hurt is quite a godsend to him. He likes being idle, especially when he is paid for it, so why should he be in a hurry to go back? As a matter of fact, he is not in a hurry. He keeps on the free-list as long as he can. Even massage does not cure him. I wished that Mr. Spanton could have heard the description of the ways of the French working man—it was so fully in harmony with the result of his recently recorded experience of the bearing of the Act in England. What was the word which Mr. Spanton gave to this twentieth-century disease—was it not *ergophobia?* The French surgeon wound up with the statement that this workman's law was bad, and that it would have to be altered. Who, I wondered, are going to alter it, the workmen or the employers? Probably, if the former *will* not the latter *can* not.

One extremely interesting case was that of an alcoholic man, of middle age, who had come to Dr. Lucas-Championnière with rupture of almost the entire mass of the quadriceps extensor cruris. Writing from memory, I believe that the rupture was not of recent origin. At any rate, it was operated on, and as the upper end of the muscular mass had been carried a full hand's breadth from its insertion into the patella, and as it was found impossible to bring the ends together, the surgeon had united them across the gap by long strands of thick silver wire, which we could distinctly feel beneath the skin and recognise in the skiagram. It was certainly a most remarkable and useful piece of surgery, for the man was now able to carry on his business as a porter at the central market and was evidently full of vigour. Judging from his appearance I personally should not have ventured to put a knife into his tissues. I should, indeed, have deemed it dangerous to bring a naked light anywhere near him.

Having thus paid a most instructive visit to the wards, we were taken into the operating theatre, where we found a young woman lying on the table calmly waiting for a radical operation to be done upon her femoral hernia. There she lay, among sisters and attendants in white dresses, and with open trays of instruments on one side of her, and with dishes of sponges and dressings on the other. How long she had lain with these unattractive surroundings I do not know. Perhaps my presence in the ward with my surgical friend had caused her time of waiting unduly to be lengthened. At any rate, I felt quite sorry for her, so I went up to her and, for the sake of distracting her attention, congratulated her on her *sang-froid*, and told her that she looked very brave and happy. She said that in this case her feelings were not in harmony with her appearance. And this I could fully believe.

As surgeon to the French Hospital in London I have been constantly struck by the pluck which is shown by French men, women, and even children on their coming into the theatre for operations. When it was my good fortune to be appointed the surgical colleague of my late friend Dr. Achille Vintras, and found that economic arrangements made it necessary for the patients to be brought into the operating theatre before the anæsthetic was administered, I thought that I should have great difficulty in persuading my French patients to bring their courage to the sticking point, and that we should have many a "scene" on operating days. But never once has the courage of a French patient failed him or her. My French patients are, to say the least, possessed of quite as much "pluck" as my own countrymen, and their behaviour fills me with admiration and respect.

At Hôtel-Dieu the anæsthetic given was a mixture of chloroform vapour, oxygen, and air, but the apparatus by which it was served seemed to me to be as complicated as the chassis and engines of a petrol motor. Dr. Lucas-Championnière, however, assured me that it was really quite simple, so I take his word for it. As the patient was being "got under" the surgeon leisurely cleaned his hands, using much soap but little water. I confess that I was surprised at the short time that he took over his own toilet, and at the fact that he did not rinse his hands in antiseptic lotion just before making his incision. He turned to me, however, and said that the old antiseptic faith which he had many years ago acquired from Lister himself had for all this time supplied him with perfect results, and it found him to-day with no desire to go in search of problematical improvements on the original methods. That he found it necessary to use neither india-rubber gloves nor facial mask, and that though the requirements of his service made it obligatory that foul cases should often be occupying beds side by side with aseptic operation cases, a strict observance of the great principles which Lister had taught him carried him along with security as well as safety. That he used Lister's catgut for every suture and for every ligature. That he still swabbed his wounds with 1 in 20 carbolic lotion before closing them, and that he continued to use a simple rubber drain in most of his operations. In short, Dr. Lucas-Championnière is still the faithful and devout, and therefore the successful, disciple of our Lister, and he finds his simple faith sufficient for all needs. What, I wonder, could a surgeon ask more than this, what more need he desire?

Having closed the hernia-wound in the young woman (except for the drainage-tube) the surgeon covered it with gauze and collodion and applied a pad of aseptic peat-wool, which, he said, on account of its absorbent qualities, as well as of its cheapness, was abundantly supplied by the Assistance Publique. As I was washing my hands

before leaving the theatre Dr. Lucas-Championnière expressed his regret that he could not offer me a proper towel. "We have," said he, "plenty of sheets and linens of large size, but of proper towels we have none, for our patients have such a fancy for such things that they invariably carry them away if the chance is offered. The best that I can offer you is one of these mean squares of linen which do not seem to offer any great temptation to the patients, 'nous les appelons les mouchoirs de l'Administration!'"

Though it is not my intention to write any account of the visit of the British medical men to Paris further than of the Saturday morning spent at Hôtel-Dieu, still, having mentioned the words Assistance Publique, the great controlling centre of the hospitals of Paris, I would like to say a few words about it. First of all, as a visitor, I would like to express to M. Mesureur, the Director of the general administration, most grateful thanks for a hundred acts of kindness and thoughtfulness which he and his service rendered to us. We shall not forget them.

And then I would say that it seems to me that the time cannot be far distant when our London hospitals, or most of them, must of necessity come under some such central public control. Extravagance in building, needless expense in the many separate schemes of maintenance and direction, enormous sums of money frittered away every week in advertisements and appeals for funds, an obvious want of supervision in the costly matter of drugs, diets, and dressings, and, last but not least, the springing up of a sort of rivalry and competition amongst the various institutions, all seem to suggest that if only to save them from insolvency our hospitals should be placed under authoritative control. The trying to patch up deficiencies in income by making poor people put down a few miserable coppers for medicine; the temporary closing of wards, or the conversion of them into homes for the reception of paying patients; the giving of permission for collecting boxes to be rattled on certain days in the year in the face of every passer-by, and the pestering of householders by heart-breaking appeals for financial help are means as unsatisfactory as they are unsatisfying. And when one sees the quiet, economical, business-like and efficient way in which the Paris hospitals are organised and administered by the Assistance Publique the more desirable a scheme of the same sort appears to be for London. Probably the King's Hospital Fund is already working towards that end.

In conclusion, I would say that the visit of the British medical men to Paris has been a perfect success in every way. We have been received in the most charming, courteous manner and treated in the most princely fashion. To say that our *confrères* have been thus kind to us is but a cold expression of what one would like to say. And as I look back upon our delightful visit—full of most happy remembrances—I cannot get away from the feeling that when our French brethren visited us last autumn we, personally and collectively, made no adequate effort to render their visit enjoyable. But when, at the magnificent banquet which they gave us on the last night of our visit, I was thus unburdening my mind to my French neighbour at the table he gently replied, "Why, the greatest compliment which you could possibly have paid us in connexion with our journey to London was this prompt and friendly return of our visit." And I know that he meant it!

BRISTOL HOSPITAL SUNDAY FUND.—At a meeting of the council of this fund held on May 18th it was reported that in 1905 there had been collections at 425 places of worship; of this number 55 were new ones. The total amount received was £2053, being £326 in excess of the amount collected in 1904 and £280 more than the largest sum hitherto realised. Of this sum the Bristol Royal Infirmary has received £805, the General Hospital £675, the Children's Hospital £261, and the Eye Hospital £120. £108 were divided among smaller medical charities, giving a total of £1969 which has been already distributed.

RUSSIAN MEDICAL STUDENTS' INTERRUPTED STUDIES.—The conference of the Imperial Military Medical Academy is continually receiving requests from medical men and pharmacists serving at the front after having had their examinations interrupted by the military requirements that they should be allowed to finish their examinations for their respective callings after their return. They have been informed that the examinations which they have already passed will still stand to their credit but that on their return to St. Petersburg they will have to petition afresh, properly supported with documents.

MEDICINE, ITS PRACTICE AND ITS PUBLIC RELATIONS.

CHAPTER XIII.[1]

THE PRESENT STATE OF MEDICAL EDUCATION.

The Universal Scheme.—A Tabular View of the Five Years' Curriculum.—The Societies of Apothecaries.—The Registration of the Student.—The English Colleges resist the General Medical Council.—Some Comparisons.

THE state of the medical profession in respect of its professional position has now been described and we see that it is a sound one, though under its various aspects there are many things that require alteration, and though grave abuses exist which could be righted immediately if only the mischief of them were properly appreciated. A profession which brings to so large a proportion of its followers a fair measure of practical success, which can be pursued in such different environments, and which offers in its mere pursuit such high intellectual and moral pleasures, cannot possibly be regarded as other than a good one, even if it may be easy to show many directions in which it might be bettered. In fact, the obviousness of the drawbacks justifies us in believing that alteration for the better may be expected. But no picture of the present position of medicine, either of its practice or of its relations to the public, should be given without dealing with medical education. The solution of the troubles of the medical life, almost as much as the intellectual pleasures of that life, lie in the acquisition of scientific knowledge and the practical power to apply the same. It is urgently important that we should all, as a profession, appreciate how much depends on the maintenance of a high level of professional learning. Only in this way can we deserve the consideration of the public and command a respectful hearing when seeking any improvement in the conditions of medical practice.

The position of medical education in Great Britain and Ireland at the present day is in a similar plight to the professional position. It is in many particulars open to amendment, but the principles as laid down by the statutory educational bodies, which are numerous and endorsed by the General Medical Council, appointed by Act of Parliament as the coördinating authority, are sound. The desire of the General Medical Council ever since its institution has been to secure an adequate curriculum for the medical student, so that the medical practitioners of England, Scotland, and Ireland, through whatever qualifying body as a medium they might enter the medical profession, should be up to a due, even to a high, standard of efficiency. As this has also been the aim of the various qualifying bodies, the great majority of which were in existence years before the institution of the General Medical Council, the educational work of the Council has been simplified. The Council, however, has recently been confronted with difficulties mainly arising from the general development of medical knowledge and the consequent increase of subjects for which space has to be found in the student's curriculum, but due also to a want of complete accord in the aspirations of all the qualifying bodies and to the special circumstances which surround the medical student at the London schools.

The scheme which the various qualifying bodies have adopted by a sort of general consensus of opinion, and which is approved of by the General Medical Council, may be summarised as follows. Firstly, the student must pass a preliminary examination, which is not of a stringent character, in fact, it seems that almost any initial test answers the purpose. Secondly, he must enter upon a five years' curriculum from the date of passing that examination, during which he must submit himself to three tests, a preliminary scientific examination, an intermediate examination, and a final examination. The preliminary scientific examination, the subjects of which are chemistry, botany, biology, and physics, should be passed at the end of the first year; the intermediate examination, the

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X., XI., and XII. were published in THE LANCET of Feb. 18th (p. 447) and 25th (p. 517), March 4th (p. 593), 18th (p. 736), and 25th (p. 817), April 1st (p. 877), 15th (p. 1017), 22nd (p. 1089), and 29th (p. 1151), May 6th (p. 1218), 13th (p. 1287), and 20th (p. 1375), 1905 respectively.

subjects of which are anatomy and physiology, should be passed at the end of the third year; the final examination, the subjects of which are medicine, surgery, and obstetric medicine, should be passed at the end of the fifth year. Hence the first year of the medical student's curriculum should be devoted to the more or less elementary study of the sciences which he will later find are necessary to the comprehension of medicine—the ancillary sciences; the next two years should see him in the dissecting room and the physiological laboratory learning to appreciate the shapes, dispositions, relations, and functions of the normal human body as the only method of detecting and understanding any lapses into disease or pathological conditions due to injury; and the last two years of the curriculum will be spent in the wards and out-patient departments of a hospital.

The medical curriculum has been extended in obedience to the vastly greater scientific and professional equipment that is now required of the medical practitioner in whatever branch of medicine he may be called upon to practise. Many years ago it was extended from three years to four, while a change made 12 years ago extended it from four years to five. Each change necessitated a re-arrangement of their examinations upon the examining bodies, and the result is that at the present moment a great similarity appears in the educational course of all of them, every student having the same subjects to read and to acquire practically in the same space of time. Consequently the state of medical education in the three countries at the present day can be discussed as a more or less uniform thing, arranged upon a definite pattern by the respective qualifying bodies and supervised by one authority—the General Medical Council. This uniformity may be insisted upon a little, for it is exactly what would *not* be expected to exist where over 20 educational institutions, having their homes in different countries and drawing their *clientèle* from different classes, compete against each other for the patronage of the student requiring a qualification. The fact that at the present time, under a system in which many faults of detail can be found, a high general level of education is maintained, making down-grade competition very improbable, is striking. And it has a forcible bearing upon proposals for reform because it suggests that the existing condition is a sound one and that nothing is required save to simplify it (1) by removal of the anomalies that are due to its growth into a whole from many separate directions and (2) by resistance to unnecessary developments undertaken with the vain hope of examining students, whose season of acquisition must be limited, in all the unlimited extensions of modern medicine.

The simplest manner to obtain a bird's-eye view of the present state of medical education in England, Scotland, and Ireland will be to consider the curriculum of the student as enjoined by the different qualifying bodies in connexion with the supervision exercised over this curriculum by the General Medical Council. The part played by the General Medical Council is to admit the student to the roll of the profession when he is successful in obtaining the necessary qualifications and to see that those qualifications are adequate. The part played by the qualifying body will be to examine him at different stages of his career. The fact that there is a general likeness between all the educational plans of the qualifying bodies enables the subject, which in a manner bristles with detail, to be treated with some brevity. This will be seen by an examination of the following two small tables. The first table sets out the examination scheme of three universities, those of Cambridge, Edinburgh, and Dublin; the second the examination scheme of the Royal Colleges of Physicians and Surgeons of the three countries. The examinations of the two Societies of Apothecaries will be found separately treated. The exact details of all the examinations of all the bodies are published annually in the respective calendars and are summarised, also annually, in the Students' Numbers of THE LANCET. There is no need to recapitulate particulars which have been published so frequently and which are so completely accessible. I have chosen, to illustrate the homogeneity of all the educational schemes laid down for the medical student, the schemes of six educational bodies, a university and a corporation in each division of the kingdom. Looking a little more closely into the details of these schemes we see their similarity to each other, and in comparing them with the schemes of other bodies we see again that the differences are mainly superficial.

The first step in the education of the medical student is his registration and the registration of a student is not compulsory. The General Medical Council has laid down regulations in reference to the registration of students which are very precise but there is nothing in the Medical Acts making it incumbent upon the student to enter his name with the Council at the commencement of his studies. It is sufficient for his name to be enrolled by his qualifying body upon passing one of the statutory examinations; that body becomes responsible for not admitting him to his final examination until five years later.

The preliminary examination, as provided for by the General Medical Council, supposing the student not to begin his studies by passing any recognised test at his university or corporation, is of fair scope. The following is the schedule:—

1. English language, including grammar and composition.
2. Latin, including grammar, translation from unprescribed Latin books, and translation of English passages into Latin.
3. Mathematics, comprising arithmetic, algebra, including easy quadratic equations, geometry, the subject matter of Euclid, Books I., II., and III., with easy deductions.
4. One of the following subjects: (*a*) Greek, (*b*) a modern language.

A degree in arts of any university of the United Kingdom or of the colonies or a certificate of having passed the final examination for a degree in arts or science of any university

TABLE I.—THE EXAMINATION SCHEME OF THE UNIVERSITIES.

University.	Matriculation.	Preliminary Scientific Examination.	Intermediate Examination.	Final M.B. and B.C. Examination.	M.D. Examination.	M.C. Examination.
Cambridge.	Medical student begins curriculum by passing the First Examination of the Arts course by graduating in Arts, or by obtaining a certificate from the Oxford and Cambridge Examining Board.	First Examination for M.B.: Chemistry, Physics, and Biology.	Second Examination for M.B.: Anatomy and Physiology. The standard is high.	Third Examination for M.B.: Part (1) Pharmacology and General Pathology. Part (2) Surgery, Midwifery, and Practice of Physic. The two parts may be taken separately.	Presentation of thesis and writing of an extempore essay.	Examination in Operative Surgery. An extempore essay has to be written.
Edinburgh.	A Matriculation Examination has to be passed of ordinary standard implying a knowledge of classics and English.	First Examination for M.B.: Chemistry, Zoology, Botany, and Physics.	Second Examination for M.B.: Anatomy, Physiology, Materia Medica, and Therapeutics.	Final Examination for M.B. and B.C.: Part (1) Pathology, at end of fourth winter session. Part (2) Surgery, Medicine, Midwifery, Forensic Medicine, and Hygiene, at end of fifth year.	Presentation of thesis and Examination in Clinical Medicine.	Examination in Operative Surgery. A thesis has to be written.
Royal University, Ireland.	The Matriculation Examination is of similar standard to that of other universities.	First Examination for M.B.: Systematic Chemistry, Zoology, Botany, and Physics, or Natural Philosophy.	Second and Third Examinations for M.B.: Part (1) Anatomy, and Physiology, and Practical Chemistry at the end of the second medical year if one year has elapsed since passing the First M.B. Part (2) At the end of the third medical year: Anatomy, Physiology, and Materia Medica.	Final Examination for M.B. and B.C.: Part (1) Medicine, Therapeutics, Pathology and Hygiene. Part (2) Surgery and Surgical Anatomy. Part (3) Midwifery and Diseases of Women. Each part of the examination must be passed as a whole.	A clinical examination. Bedside diagnosis and treatment of cases.	Written and clinical examination in all subjects.

TABLE II.—THE EXAMINATION SCHEME OF THE CONJOINT BOARDS OF ENGLAND, SCOTLAND, AND IRELAND.

Name.	Entrance Examination.	First Professional Examination.	Second Professional Examination.	Third Professional Examination.
English Conjoint Board (Royal College of Physicians of London and Royal College of Surgeons of England).	Any examination approved by the General Medical Council.	Chemistry and Physics, Practical Pharmacy, and Elementary Biology. Examination can be taken in three parts and Pharmacy can be taken at any stage in the curriculum.	Anatomy, Physiology and Histology. Both subjects must be passed together.	(*a*) Medicine, Pharmacy, Forensic Medicine, and Public Health. (*b*) Surgery and Surgical Anatomy. (*c*) Midwifery and Diseases of Women. Examination can be taken in three parts and Part (*c*) can be passed at end of fourth year.
Scottish Conjoint Board (Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Faculty of Physicians and Surgeons of Glasgow).	Any examination approved by the General Medical Council.	Chemistry, Elementary Anatomy and Physiology, and Histology.	Anatomy, Physiology, Materia Medica, and Pharmacy.	(*a*) Medicine, Clinical Medicine, and Therapeutics. (*b*) Surgery and Surgical Anatomy. (*c*) Midwifery and Gynæcology. The three subjects may be passed separately.
Irish Conjoint Board (Royal College of Physicians of Ireland and Royal College of Surgeons in Ireland).	Any examination approved by the General Medical Council. Colleges also hold a preliminary examination.	Chemistry, Physics, and Elementary Biology.	Anatomy, Physiology, and Histology.	(*a*) Pathology, Pharmacy, Public Health, and Hygiene which may be passed at the beginning of the fourth year. (*b*) Medicine, Surgery, and Midwifery. Candidates may present themselves for examination in the subjects separately.

in the United Kingdom is considered a sufficient testimonial of proficiency for admission to the Students' Register or to the commencement of medical study. There are many examining bodies whose examinations in general education are recognised by the General Medical Council as qualifying for registration as a medical student. At the Universities of Oxford and Cambridge graduates are admitted to registration, but the undergraduates of these universities are exempt from any preliminary examination before commencing medical studies if they have passed certain standards in the local examinations, have obtained certificates from the Oxford and Cambridge Schools Examination Board, or have passed the first and second tests for the ordinary arts degrees—viz., "smalls" or "moderations" at Oxford, "little-go" or "general" at Cambridge. The Universities of London, Victoria, Birmingham, Liverpool, the Royal University of Ireland, and the University of Wales, all have a matriculation, and those who have passed this test at their respective universities can commence their medical studies. The University of Dublin has an entrance examination, while the Universities of Edinburgh, Aberdeen, Glasgow, and St. Andrews have an inaugurating test for their students in the preliminary examination of the joint board of examiners for graduation in arts or science or medicine and surgery. The College of Preceptors in England holds a preliminary examination for medical students and also a general examination for first-class certificates. Satisfaction of either test will admit the student to his studies. In Ireland the middle and senior grade examination of the Intermediate Education Board, in Scotland the leaving certificates of the Scottish Education Department, and in Wales the senior certificate of the Central Welsh Board will do the same. There are regulations by which students at colonial, Indian, and foreign universities can obtain admission to the Students' Register, concerning which it is enough to say that the General Medical Council has to be satisfied of the adequacy of the tests. The Conjoint Examining Board of the Royal Irish Colleges holds an examination which is approved of by the General Medical Council but there is nothing of the sort at the other two Conjoint Boards.

The medical student, as we have said, need not register as such. What is necessary is that he shall pass one of the approved examinations in general knowledge before entering upon his five years' curriculum and that he should not be admitted to the final examination of the qualifying body until he has completed that curriculum. It seems, therefore, a small point that he is not compelled to register, seeing that whether he registers or not he has to be a medical student for five years, but upon it hangs a very important issue, one that has been recently the subject of difference of opinion between the English Royal Colleges and the General Medical Council—a difference of opinion now in abeyance rather than settled. The General Medical Council has objected to the standard of scientific education required at the preliminary scientific examination of the English Conjoint Board. The English Conjoint Board accepts certificates that its students have undergone instruction in chemistry, botany, and physics at certain named public schools and institutions. Supposing a student who has passed his entrance examination in general education possesses satisfactory proof of having attended courses in preliminary science at one of these schools he can be admitted to the preliminary scientific examination of the English Conjoint Board, and, if he passes the examination, he can at once proceed to the study of anatomy and physiology, having apparently shortened his period of professional study to four and a half years by doing his preliminary scientific work at school and counting the time so spent as six months of his medical curriculum. Some may say, where is the harm? There is no harm if the preliminary scientific examination is sufficiently difficult. To practical minds it cannot matter a tittle where the student acquires his knowledge of the ancillary scientific subjects if only he acquires sufficient, but this is the point upon which the General Medical Council desires to be satisfied. The Council is the central authority and it is its duty to make certain that the curriculum cannot be abbreviated in a manner that is either unjust to the public or advantageous to some qualifying bodies more than to others. The difficulties are considerable. The General Medical Council for practical reasons cannot watch over the scientific courses given in public schools, so that the only way in which its power and responsibility of supervising medical education can be exercised is by insuring that the examination in the work purporting to be done at such schools is particularly rigid. The English Conjoint Board has resented the strictures of the General Medical Council upon the preliminary scientific examination of the Board, and this feeling is intelligible, for the Board has taken great trouble to insure that the examination is adequate and that the instruction at the various schools is good. Negotiations between the two parties were not conducted with complete urbanity. No one who knows anything of medical education can possibly fail to appreciate the fact that the professional examinations of the English Conjoint Board are remarkably thorough and well conducted. The men who pass the final examinations of this Board meet with the most uniform success in other competitive examinations and in every way show that they are able to hold their own with the possessors of so-called "honour" degrees. This fact makes it especially galling for the Board to have its preliminary scientific examination called in question, and the Board would probably desire to take up the attitude that the General Medical Council, being concerned only in seeing that the men who apply for registration as qualified medical men are duly instructed, should confine its inspection of examinations to the finals. The contention does not hold water. It is not possible to say that education begins in one place rather than in another, and it is the manifest duty of the General Medical Council to inspect any portion of the curriculum of any one of the qualifying bodies and to demand any necessary alteration. The English Conjoint Board, having lent itself to the appearance of shortening the medical curriculum, ought not to consider the General Medical Council to be inspired by any unfair animus if the Council reflects upon the character of the preliminary scientific training demanded by the Board; and the action of the Board in signifying that for the future its

medical students need not register seemed at one time to be likely to meet with reprisal. A Bill was projected by the General Medical Council making the registration of the medical student compulsory, but the measure was dropped when it was found that the English corporations were not alone in their attitude but that some of the other qualifying bodies also objected to the proposed legislation. The zeal of the Council for registration of the student was not, as a matter of fact, due so much to a desire that every student should commence his studies upon a national students' roll as that he should contribute a fee for registration to the depleted coffers of the Council. It may have been consciousness of this fact that led the Council to drop the Bill with readiness.

The two tables show the scheme of the medical curriculum of the various universities and corporations and show it to be uniform. The educational schemes of the two Societies of Apothecaries are not quite on the same model and can be best described by brief summaries.

SOCIETY OF APOTHECARIES OF LONDON.—There are two examinations for the Licence of this Society—the Primary and Final. The Primary Examination consists of two parts. The Licence entitles the holder to registration as being qualified in medicine, surgery, and midwifery. Part I. comprises Elementary Biology; Chemistry and Chemical Physics, including the Elementary Mechanics of Solids and Fluids, Heat, Light, and Electricity; Practical Chemistry; and Materia Medica. Part II. includes Anatomy, Physiology, and Histology. This examination cannot be passed before the completion of 12 months' practical anatomy with demonstrations and these subjects cannot be taken separately. The Final Examination is divided into two sections. Section 1 consists of three parts. Part I. includes the Principles and Practice of Surgery, Surgical Pathology and Surgical Anatomy, Operative Manipulation, Instruments, and Appliances. Part II. includes the Principles and Practice of Medicine, Pharmacology, Pathology, and Morbid Histology; Forensic Medicine, Hygiene, Theory and Practice of Vaccination; and Mental Diseases. Part III. includes Midwifery, Gynæcology and Diseases of New-born Children, and the Use of Obstetric Instruments and Appliances. Section 1 of the Final Examination cannot be passed before the expiration of 45 months after registration as a medical student, during which time not less than three winter sessions and two summer sessions must have been passed at one or more of the medical schools connected with a general hospital recognised by the society. Section 2 of the Final Examination consists of two parts. Part I., Clinical Surgery; Part II., Clinical Medicine and Medical Anatomy. Section 2 cannot be passed before the end of the fifth year.

APOTHECARIES' HALL OF IRELAND.—The Licence of this Hall is granted to students after five years of professional study. The diploma of the Apothecaries' Hall of Ireland entitles the holder to be registered as a practitioner in medicine, surgery, and midwifery. There are four professional examinations. The First Examination includes biology, physics, theoretical and practical chemistry, with an examination at the bench. Pharmacy is put down in this examination, but it may be taken at any of the first three examinations. Candidates holding a pharmaceutical licence are exempt from this subject. Osteology is also a subject of the first professional examination. The subjects for the Second Professional Examination are anatomy, materia medica and therapeutics, physiology, and practical histology. The Third Examination consists of pathology, materia medica if not taken at the Second Examination, medical jurisprudence, and hygiene. The Final Examination includes clinical and theoretical medicine, surgery (with operations), ophthalmic surgery, midwifery, and gynæcology.

It will be seen that the curriculum at the three Universities given in Table I., which is typical of that at the remaining Universities, is practically identical with that of the Conjoint Boards. At the Universities the entrance examination, in the form of an arts degree, a matriculation, or a certificate, generally demands more than the minimum approved by the General Medical Council, but none of the Universities, save the University of London, makes any serious demand upon the medical student at the outset of his career. The First Examination for the M.B., or Preliminary Scientific Examination, at the Universities corresponds with the First Professional Examination at the Colleges, which is not strictly a professional examination at all, but an examination in ancillary subjects. The Second Examination for the M.B., or Intermediate Examination, at the Universities corresponds with the (so-called) Second Professional Examination at the Colleges. This examination at Oxford is called the First Examination for the M.B., which designates the examination as the first strictly professional examination. The Final Examination for the M.B. at the Universities corresponds with the Third Professional Examination at the Colleges. In each case the same subjects are set and the standards are roughly similar, the extent to which they may be raised being left to the individual university or corporation, while the superintendence of the General Medical Council prevents them from dropping too low. The same may be said of examinations for the Licences of the Societies of Apothecaries, where more or less an identical system of subdivision of the professional subjects prevails.

The fact that medical education, all along the lines which converge in the qualification of the student, should be so homogeneous much simplifies the task of the General Medical Council in its efforts to maintain a high standard, and should give pause to those who call out that medical education is chaotic because certain minor anomalies exist. Yet the differences which exist in the curricula are real and do harm. The Matriculation Examination of the University of London, for example, is much more difficult than any other of the examinations which confront the students on the threshold of their medical careers. It has been modified of late but there is no doubt that far more application is required from the student to pass this examination than is required to pass any of the other entrance examinations, and the student who has passed it is able to assimilate with greater ease the subjects of the purely professional examinations, while at every other portal to the medical profession the student is allowed to enter with too little ceremony. The examinations of the College of Preceptors and of the Scottish Education Department, the Cambridge "little-go" and the Oxford "smalls" are not tests of general knowledge in the least, and the lad who has passed no more severe ordeal than these has not proved himself to be sufficiently equipped in general knowledge. His classical smattering and his scraps of mathematics will not stay by him, and if they did they would not render his future work easier for him. If the University of London has gone too far none of the other qualifying bodies has gone far enough, and the General Medical Council might well insist upon an all-round raising of the standard of general education. The Preliminary Scientific Examination is also higher at the University of London than elsewhere, but the tendency at all the examining bodies is to improve this examination, especially in the direction of chemistry—a healthy sign, the inter-relation of chemistry and physiology, biology and pathology, having now become so close. The Intermediate Examination, called First M.B. at Oxford and Second M.B. at all the other Universities, is a thorough one in every instance. The student is sometimes allowed to take the two subjects separately, but it is significant that at Cambridge, where the standard of physiology is high, they must be taken together. And it is far preferable that they should be so taken. The highest standard in anatomy is that demanded by the Royal College of Surgeons of England in the intermediate examination for the degree of Fellow, but the Fellowship course is a purely honour course and for that reason is not included in the preceding tables.

In the final examinations there are a few variations from type which call for notice. At the University of London there is a definite examination for the M.D. degree and the medical man is desired to specialise in that degree by electing to be examined under five different headings. In the examinations for the M.B. degree at Edinburgh a certain amount of specialisation is invited, while at Birmingham the examination is much split up into groups, a proceeding which doubtless will be convenient to the student but which cannot be commended. In Edinburgh the subject of pathology, and in Glasgow the subjects of pathology, jurisprudence, and public health, can be separated from the other final subjects and passed at the end of the fourth year. The same arrangement, with the addition of applied anatomy and physiology, holds good at the University of Dublin.

The scheme of medical education in England, Scotland, and Ireland to-day is very nearly uniform. The entrance to practice is better guarded at one door than at another but everywhere the curriculum is well devised and may turn out good men. Moreover, the various educational bodies are

zealously and constantly watched by the General Medical Council, which is never accused of being supine in respect of educational supervision. The final examinations of all the universities and corporations are tested periodically by the visitors and inspectors of the Council and from the report which these officials make from time to time to the Council a very exact idea of the present state of medical education in the various centres can be obtained. In the next chapter will be found a summary of the last visitations made.

(To be continued.)

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held on May 11th, Sir R. DOUGLAS POWELL, Bart., K.C.V.O., the President, being in the chair.

The following Members who were elected to the Fellowship at the last meeting were admitted as Fellows: Duncan Burgess, M.B. Cantab.; Thomas Watts Eden, M.D. Edin.; Wilfred John Harris, M.D. Cantab.; Bedford Pierce, M.D. Lond.; James William Russell, M.D. Cantab.; James Harry Sequeira, M.D. Lond.; Harold Batty Shaw, M.D. Lond.; Edmund Ivens Spriggs, M.D. Lond.; William Barnett Warrington, M.D. Lond.; Arthur Whitfield, M.D. Lond.; and Robert Arthur Young, M.D. Lond.

This being the only business on the agenda the PRESIDENT dissolved the Comitia.

REPORT OF THE GERMAN COMMISSION ON ANTITYPHOID INOCULATION.

THERE has reached our hands in the course of the last few days the report of a committee of bacteriologists convoked at the instance of the Prussian Government to consider and to report upon the question of antityphoid inoculation in connexion with the German army. The committee included among its members, in addition to Professor Koch, Professor Kolle (well known for his work in connexion with this question) Professor Dönitz, Professor Kirchner, and the Director of the Institute of Infectious Diseases in Berlin—Professor Gaffky. The report, which has been drawn up by the last named, considers the question referred to it under four different aspects. It deals first with the rôle of antityphoid inoculation as a sanitary measure; secondly, with the question of the best inoculation procedure; thirdly, with the question as to whether there is any risk or danger attaching to the inoculations; and lastly, with the question as to what ought to be done to obtain further information on the subjects at issue.

The conclusion arrived at is that the subject of antityphoid inoculation is one of national moment. It is recognised that while the incidence of typhoid fever among the German troops is in time of peace very light, typhoid fever would come to be an all important factor in connexion with a European war and a still more important factor in connexion with war carried on in tropical or subtropical countries. It is, in the opinion of the committee, and for these reasons, a matter of urgency for the German Government to carry out researches and to collect all possible information with regard to antityphoid inoculation. These considerations which hold good in the case of Germany ought manifestly to come home to us in an even more intimate way in view of the eventuality, which has recently so much occupied the public mind, of our having to place half a million soldiers in the field for the defence of the North-Western frontier of India. And even that eventuality apart, the question of the possibility of inoculating successfully against typhoid fever is to us who have to keep the larger part of our army permanently in tropical and subtropical countries manifestly of more intimate concern than it is to any other nation.

But, it will be urged, it is precisely the question of the possibility of such successful inoculation that has been at issue. On this question the conclusions arrived at by the German Commission will be of interest. The committee begins by dealing with the experiments on animals and points out that the possibility of conferring protection upon animals against many times the lethal dose of a culture of the bacillus typhosus is beyond dispute. It then deals with the experience of antityphoid inoculation in connexion with the British Army. Pointing out that this experience has been accumulated by the "energy of English (army) doctors put forth in response to the continually reiterated stimulus coming to them from A. E. Wright, late professor in the Army Medical School, Netley," and expressing its appreciation of "the admirable tenacity" which has characterised his work, it proceeds to pass in review the history of antityphoid inoculation in the British Army. It refers in particular to the abolition of the process by the Medical Advisory Board; to the favourable judgment passed on the inoculation by the antityphoid committee of the College of Physicians; to the continued opposition of the Advisory Board; to the final re-introduction of the inoculations into the army on the recommendation of the antityphoid committee appointed by the Secretary of State; and to the retirement of Dr. Wright from that committee by reason of his dissatisfaction with the failure to provide an organisation for the adequate scientific control of the inoculations.

Finally comes the verdict on the question of the efficacy of antityphoid inoculations. Our readers will like to have the *ipsissima verba*. The verdict is worded as follows:—

> On a survey of the already mentioned scientific observations conducted on animals and men and the practical experience which has already been gained in the case of men it is impossible, even when proceeding with the greatest caution, to doubt that the inoculation can confer a certain measure of protection, and that it is urgently desirable to seek for further information, based so far as possible upon absolutely trustworthy data, with regard to the degree and duration of this protection.

Passing from this general judgment to the discussion of the technical question as to the relative advantages of single or double inoculation and of preparing the vaccine from agar or broth cultures, the committee recommends the employment of two successive inoculations and of a vaccine made from agar cultures heated from 60° to 65°. Dismissing the question of procedure, it then embarks upon the consideration of the question as to whether there is any risk of any permanent injury to health from inoculation. It decides that there is no such risk; and it points out that in view of the opposition which antityphoid inoculation has encountered in certain quarters in England it is quite certain that anything which could have been alleged against antityphoid inoculation in this respect would certainly have been alleged. Finally, the Institute of Infectious Diseases and Professor Koch personally undertake in relation to the military authorities full responsibility in connexion with the introduction of the inoculation into the German army and the carrying out of the inoculations in the cases of German troops proceeding to South-West Africa.

It will be seen that the conclusions of the German Commission are substantially those of the successive committees the verdicts of which led to the re-introduction of antityphoid inoculation in the British army after it had been abandoned by the Medical Advisory Board. With respect to that further research and careful scientific control of the inoculations which have, as the German Commission notes, always been insisted upon by Dr. Wright as essential to the perfecting of antityphoid inoculation, we may learn the proper course of action from that already undertaken in Germany. There a considerable staff of bacteriologists in the Institute of Infectious Diseases—one of the most famous and best equipped laboratories in the world—is now occupied in research in connexion with antityphoid inoculation, while some 2000 inoculations have already been carried out in connexion with troops despatched to South-west Africa. Here the care of antityphoid inoculation is delegated to a committee which, as at present constituted, includes two members of the hostile Advisory Board. The policy of this committee appears to be to sit down and to await the results of the inoculations which were carried out in a single regiment last autumn. And the irony of fate has appointed that the particular regiment should now be quartered in a station which is practically never visited by typhoid fever. While we are very far from suggesting that a regiment should be sent to a hotbed of typhoid fever for the purpose of testing the efficiency of antityphoid inoculation, we feel that the medical policy which proposes to investigate antityphoid inoculation and which omits to apply the test in the stations where typhoid fever is always rife is probably lineally descended from the policy which, in

association with the abolition of antityphoid inoculation in the army, suspended also the collection of all further returns with respect to the incidence of typhoid fever in the many thousands of inoculated who still remained in the army.

If the policy with respect to antityphoid inoculation is as stated above it appears to us to rival in ineffectiveness the medical policy which seeks to stem the plague, which carried off within a year over 1,000,000 of our fellow subjects, by the agency of a commission which proposes itself to remain in London and to delegate to assistants the actual work of research that can only be carried out in India.

MEDICINE AND THE LAW.

Two Cases of Alleged Death from Poisoning, by Arsenic and Strychnine respectively, in the United States.

Mr. G. M. Beringer has recorded in the *American Journal of Pharmacy* for February the results of toxicological examinations in two interesting cases of alleged death from poisoning. In the first case the defendant was charged with the murder of her step-daughter, a frail child, aged two years and nine months, who died without having had sufficient medical attendance and in circumstances that were considered suspicious. One evening the defendant called on a neighbouring physician and said that the child was suffering from a slight cold. He prescribed a few small pellets of aconite. An hour later she again called on the physician and requested his immediate attendance as she said the child had had a convulsion. On arrival at the house the physician found that the child was dead but there was no evidence of convulsions. He discovered numerous bruises on the body, and as the neighbours spoke of the step-mother's harsh treatment towards the child he referred the case to the coroner. The undertaker, however, was promptly summoned. He arrived at midnight and immediately embalmed the body, injecting about one pint of fluid into the abdominal cavity near the navel. The coroner issued a burial permit and the child was buried, but through the suspicions of the child's maternal relatives, who demanded an official investigation, the body was disinterred and a post-mortem examination was made by Dr. R. H. Parsons and Dr. A. H. Small. They reported that they found the nose broken, the eyes black and blue, the upper lip deeply cut, the left ear partly torn from the scalp, and numerous other bruises on the body and the head. They considered that meningitis was the direct cause of death. Separate chemical examinations of the viscera and other parts were made by Mr. Beringer and by Professor Frank X. Moerk, the former finding nearly 12·5 grains of arsenious oxide and the latter 17·5 grains in the materials examined. Suspecting that the embalming fluid was an arsenic solution a sample was procured from the undertaker who stated positively that it was part of the same lot that was used for embalming the body. Analysis showed it to contain formaldehyde and potassium nitrate, but it was entirely free from arsenic. At the trial the State contended that death was due to meningitis, produced either by the wounds from cruel beating or by arsenical poisoning or by a combination of both. For the defence it was claimed that the arsenic was introduced after death by the embalming process. This contention was strengthened by the evidence of the undertaker who, when called for the defence, stated that he occasionally used two other embalming fluids, both containing arsenic. The jury acquitted the defendant.

In the other case a woman was charged with having killed her husband by the administration of strychnine. The evidence showed that the husband, a healthy man of a cheerful disposition, had a slight attack of diarrhœa and vomiting on the day of his death. His wife drove to a neighbouring town and obtained from a physician some tablets containing calomel, morphine sulphate, capsicum, ipecacuanha, and camphor; also a liquid containing fluid extract of gentian and syrup. She inquired whether it would be necessary for her to obtain a prescription in order to purchase some strychnine. She later purchased 30 grains of strychnine from a druggist in the town, stating that it was required for killing rats. She inquired there how much of the poison it would take to kill a man. On returning home she administered to her husband, in the presence of a friend, one-third of a teaspoonful of a brown powder. The patient complained of the intense bitterness of the medicine. After a short time a second and similar dose was administered and the husband again complained of the bitterness. Soon after this he became restless, the usual symptoms of strychnine poisoning followed, including twitching and jerking of the muscles and convulsions, and at 7.15 P.M. he died. Immediately after the death of her husband the defendant made conflicting statements as to the disposition of the strychnine, stating that she had burned it in the presence of three witnesses who on their part contradicted her statement. The post-mortem examination failed to reveal the cause of death; a chemical examination of the organs showed the presence of strychnine amounting to about one-sixth of a grain in the materials examined. At the trial the State alleged as motives for the crime the acquirement of a sum of $1000 through an insurance policy on the husband's life and the desire of the defendant to marry a farm hand with whom for a long time she had maintained improper relations. The *liaison* was admitted by the defence, as also that death was the result of poisoning by strychnine, but the defendant testified that the strychnine had been placed in a desk in the sitting-room, and that her husband must have taken some of the poison while the rest of the family were at dinner in an adjoining room. She explained the powdered condition of the medicine by the fact that the envelope in which the physician had placed the tablets had fallen on the floor of the carriage and had accidentally been trodden on by her heel on the way home. The jury considered this plea as establishing a reasonable doubt and as sufficient to justify them in rendering a verdict of acquittal.

What is Pure Milk?

As a result of the deliberations of the departmental committee of the Board of Agriculture which sat in 1900 the Sale of Milk Regulations were issued during the next year. They affirmed that milk to be allowed as genuine must contain not less than 3 per cent. of milk fat and not less than 8·5 per cent. of other milk solids. These percentages are recognisedly a minimum and lead the unscrupulous vendor into the temptation to skim or to dilute the native product to a degree which will just keep him within the letter of the statutory provisions. If a specimen of milk upon analysis exhibits a less percentage than the regulations demand there is a presumption against the seller of adulteration, dilution, or abstraction; if, however, he can prove satisfactorily that the specimen was just as the cow yielded it this presumption can be rebutted by him. To the medical man the statutory definition as to the proportional contents of milk is little short of an anomaly; he knows the variations in the relative constituents of human milk, and he is assured by farmers that cow's milk is similarly variable; a change of the diet or the shed of an animal, being "bulled," maltreatment, and many other causes are alleged to weaken the quality of genuine milk, some of these probable causes having been corroborated by skilled analysts. When a local sanitary authority has found milk to be deficient in the usual solids, whether the vendor is liable or not rests with the local justices to determine. In 1902 (Smithies *v.* Bridge) where milk was proved to be untampered with, this fact did not excuse the presence of only 2·09 per cent. of milk fat. In Ireland the regulations demand the same percentage as in England, so that when in September, 1904, at Skibbereen, it was proved that there was less than 3 per cent. of milk fat the vendor was not allowed to escape the penalty. Recently in the King's Bench Division (Wolfenden *v.* McCulloch) it was decided that the conviction must be upheld as the liability for selling inferior milk was determinable by the justices; in this case there were 2·81 per cent. of milk fats and 8·94 per cent. of other solids. Lastly, a metropolitan stipendiary magistrate has just allowed the plea adduced by a solicitor and supported by the *ipse dixit* of dairymen, that a deficiency of milk fat to the extent of 18 per cent. was accounted for solely by the fact that the cow from which the milk was drawn was being "bulled" at the time. There is weighty legal opinion, however, to the effect that justices may convict if they consider that the quantitative constituents of the sample of milk, apart altogether from the presence of preservatives, are so different from the normal that the article is not "of the nature, quality, or substance" as the thing demanded; probably this view will be tested before long in order to settle the present uncertainty on a question of great public importance.

The Medical Man, the Coroner, and the Pathologist.

When the two murderers, Albert and Alfred Stratton, were hanged at Wandsworth gaol on May 23rd the post-mortem examination was made by Dr. L. Freyberger. It has been suggested in justification of the employment of this gentleman instead of such a medical practitioner as the Coroners Act directs, that the evidence of a pathologist with special experience may be desirable in obscure cases where the cause of death is difficult to determine. It hardly seems likely that exceptional difficulty will arise in ascertaining the cause of death where a criminal has been executed by hanging, but such must apparently be considered to be the view of Dr. Freyberger's employers.

St. Thomas's Hospital and the Observations of a Coroner.

At an inquest held at Lambeth on May 22nd the death of a domestic servant, aged 24 years, was inquired into. The girl was found wandering in the streets on Easter Monday by the police and was removed to the Marylebone workhouse infirmary where her condition improved. Mr. Bernard Pitts, in whose employment she had been, interested himself in her case, and asked Dr. Percy Smith to examine her as to her mental condition. Dr. Smith reported that in his opinion she was rational and would not be a fit case for a lunatic asylum but would be better under observation at a hospital and accordingly Sir John Parkington, a magistrate, signed an order to allow her removal from the workhouse infirmary. A nurse at St. Thomas's Hospital who gave evidence at the inquest said that the deceased was admitted to one of the wards and was watched but that after the patients were settled for the night her attention was called to the deceased who had left her bed. The witness then saw her open the door on to the balcony, pass out, and cast herself over, killing herself in her fall. Mr. Troutbeck, in summing up to the jury, said that he regarded the case as most serious and expressed his intention of communicating with the Commissioners in Lunacy with regard to it, adding to his other observations that he was not at all satisfied with the way the case was removed from a place where special treatment could have been given to one where there were no special conveniences for lunacy cases. The jury, however, declined to accept Mr. Troutbeck's view and added to a verdict of "Suicide while of unsound mind" a rider to the effect that they considered that the authorities of St. Thomas's Hospital were free from blame in the matter. With this exoneration Mr. Troutbeck said that he could not in any way concur. If Mr. Troutbeck was seriously of the opinion that the hospital authorities or any one else, either through any negligence or callousness or by action due to some sinister motive contributed to the very unfortunate incident recorded, he was no doubt justified in expressing his views. The jury, however, evidently dissented from him, and it would appear that so far from any indifference being shown as to the poor girl's case very exceptional interest was taken in it, and that unusual attention and care were accorded to the deceased. Moreover, Mr. Pitts, Dr. Smith, and Sir John Parkington can hardly be accused of having been influenced by any motive save the desire of doing for the patient, according to their judgment, the best that lay in their power. The Commissioners in Lunacy, to whom Mr. Troutbeck apparently intends to report the matter, can hardly take a different view as to the motives which actuated everyone concerned.

THE GERMAN SURGICAL CONGRESS.[1]

THE German Surgical Association held its annual meeting from April 26th to 29th in Berlin, Professor KRÖNLEIN (Zürich) being in the chair.

Treatment of Acute Inflammation.

Professor BIER (Bonn) explained his method of treating acute inflammation, cellulitis, furunculi, lymphangitis, mastitis, &c., by artificial hyperæmia. The hyperæmia was produced by the application of cupping glasses of different sizes and shapes according to the seat of the affection, so that, for instance, in mastitis large glasses surrounding the entire mamma were employed. When suppuration occurred very small incisions were made and the pus was withdrawn by the suction effect of the cupping glass, which was applied several times a day for five minutes. In lymphangitis and cellulitis of the extremities hyperæmia was produced by the application of a caoutchouc bandage which at first aggravated the inflammatory symptoms and increased the œdema but improvement soon followed. From time to time the bandage must be removed for some hours. Gonorrhœal and pyæmic arthritis were also benefited by the treatment. The details of the procedure were demonstrated on a number of patients from the Berlin University clinic suffering from inflammatory conditions and the same patients were shown at the final meeting of the Congress, when an obvious improvement in the symptoms had occurred.

Suppuration of the Kidney.

Dr. JORDAN (Heidelberg) said that he had observed 12 cases of renal and perirenal abscesses as a sequel to furunculi, the cause being hæmatogenic infection. As a rule, only one kidney was affected. The diagnosis was rather difficult, as the symptoms resembled those of appendicitis, enteric fever, and spondylitis. To ascertain the nature of the case pain and enlargement of the kidney and the existence of a place of entrance for the virus were essential. The prognosis was not bad when an early diagnosis was made and nephrotomy was performed; otherwise pyæmic fever might develop.

In the discussion Professor ISRAEL (Berlin) said that the point of entrance of the virus might be the mucosa of the nose and that the presence of blood in the urine was essential for the diagnosis.

Appendicitis.

Professor KOERTE (Berlin), in introducing a discussion on Appendicitis, said that it was impossible to ascertain the state of the appendix and even to recognise an impending peritonitis without an operation. Of 137 cases of recent origin on which he had operated during the first three days 57 presented the symptoms of peritonitis. Of the patients operated on during the first two days 18 per cent. died and of those on whom the operation was performed on the third day 36 per cent. died. The patients without peritonitis all recovered. By waiting longer than three days the patients were exposed to the danger of pylephlebitis, empyema, pyelitis, and adhesions. The best treatment was the radical operation within the first two days; on or after the third day the abscess should only be opened. After the third day the operation should be postponed till the acute symptoms had subsided. Operations performed during this stage of interval had a mortality of 1 per cent. only. The same procedure was indicated also in cases of appendicitis obliterans.

In the discussion the majority agreed with Professor Koerte. Professor KÜMMELL (Hamburg), who had formerly advocated a conservative treatment, said that he now preferred an early operation, as the nature of the disease had obviously become more grave. Of 89 cases operated on by him in the early stage only three died.

Dr. REHN (Frankfort) said that it was impossible to give a positive opinion as to the prognosis of an acute attack.

Professor VON HOCHENEGG (Vienna) directed attention to the formation of abscesses in Douglas's cavity, this occurrence being an early sequel to acute appendicitis.

Professor SCHLANGE (Hanover) said that he believed an early operation to be necessary during the first attack; when several attacks had already occurred it was permissible to wait for the interval.

Dr. FEDERMANN (Berlin) said that Professor Sonnenburg used to perform an early operation when the case was apparently a severe one. In other cases he waited till the acute symptoms had passed off.

Tetanus Antitoxin.

Professor KÜSTER (Marburg) gave details of the case of a patient who while working in a bacteriological laboratory was wounded by the breaking of a tube containing a culture of tetanus bacilli. The wound was immediately washed out with a solution containing antitoxin, but nevertheless slight symptoms of tetanus developed. Professor Küster then exposed the axillary and cervical nerves and injected the antitoxin into the nerves. Next day the tetanus contractions had disappeared.

Post-operative Pneumonia.

Dr. KELLING (Dresden) said that pneumonia might arise in three ways—namely, by aspiration, by embolism, and by the lymphatic system. Patients who were exposed to cold

[1] For this report we wish to tender our sincere thanks to the editor of the *Deutsche Medicinische Wochenschrift*, through whose courtesy it has been forwarded to us by our Berlin correspondent.

during the operation were predisposed to an attack of pneumonia. Dr. Kelling believed that there was a direct communication between the lymphatic vessels of the abdomen and those of the thorax.

Dr. ROTTER (Berlin) recommended the production of anæsthesia by means of scopolamine and morphine as a means of avoiding pneumonia. This method, moreover, by relieving the pain from which the patients suffered made their respiration deeper and more regular and in this way also tended to prevent pneumonia.

Professor LENHARTZ (Hamburg) said that patients showing the first symptoms of pulmonary complications should be made to lie on the healthy side so that the affected lung could admit air more freely.

Professor KÜSTER said that the use of ether as a general anæsthetic had no influence on the production of pneumonia.

Professor KRÖNLEIN said that he used as little ether as possible and the number of cases of pneumonia in his clinic was decidedly small.

Dr. MÜHSAM (Berlin) was of opinion that pneumonia after appendicitis was brought about by embolism.

Production of Anæsthesia by Spinal Injections.

Professor BIER said that instead of cocaine he now used another compound—namely, stovain, devised by Professor Fourneau, to produce anæsthesia of the lower extremities. The injection should be given in the median line between the first and the second lumbar vertebræ and not until after the escape of the cerebro-spinal fluid. He recommended that no attempt should be made to obtain an extension of the anæsthesia beyond the inguinal region as disagreeable symptoms might be the result. Complications such as headache might be avoided by using isotonic solution and in any case disappeared after the administration of castor oil.

In the discussion the efficacy of Professor Bier's method was generally admitted. Dr. NEUGEBAUER said that the best results were obtained by the injection of tropacocaine.

Fractures of the Patella.

Dr. THIEM (Cottbus) advocated suture of the fragments in every case where complete coaptation was impossible. He showed by statistical tables that the patients treated in this way recovered within a shorter time and were better able to work than those treated without operation. Subcutaneous sutures should not be used when the fragments were not brought into view; interposed soft tissues were sometimes not removed. Bony union of the fragments could not be obtained by massage.

Public Health and Poor Law.

LOCAL GOVERNMENT BOARD.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On Small-pox and Small-pox Hospitals in Liverpool, 1902–03, by Dr. R. J. REECE.[1]—In this report Dr. Reece gives the results of an elaborate statistical study of the local distribution of small-pox in Liverpool during 1902 and 1903 in relation to the operations of the three hospitals which during different periods in these two epidemic years were used for the isolation of small-pox cases. The inquiry is of special value in its bearings upon the questions of "small-pox hospital influence" and of aerial convection of infection from small-pox hospitals, while the results which have been obtained have important practical applications. The three municipal isolation hospitals in question are respectively those of "Priory-road," "Park Hill," and "Fazakerley." From Dec. 6th, 1901, to the end of 1902 some 552 cases of small-pox occurred in Liverpool. Nearly all of these were isolated in Priory-road hospital which is situated in the north-east of the city. From the beginning of 1903 to the end of June 1585 further cases were known to have occurred. During this period the majority of the cases were isolated in Park Hill hospital, situated to the south of the city, about three miles from Priory-road; others were treated at Fazakerley hospital, outside the city boundary; while a small proportion were taken, as before, into the Priory-road hospital. During the last six months of 1903 the number of new cases of small-pox was 121, nearly all of which were treated at the Fazakerley hospital, admission to the other two hospitals having ceased by the beginning of July. Of these three hospitals Fazakerley alone can be said to be comparatively remote from populous areas and is the only hospital which complies with the population requirements of the Local Government Board. Each of the other hospitals, Priory-road and Park Hill, has a considerable populous area in its neighbourhood, the figures for inhabited houses within a quarter of a mile, within half a mile, and within one mile respectively being for Priory-road 85, 2055, and 21,724; and for Park Hill 171, 2430, and 12,610. The total number of houses in the city of Liverpool is nearly 130,000. The position of the matter in regard to the situation of these hospitals and to the risk of using them during a small-pox epidemic is thus set out by Dr. Reece:—

> The relation of these two hospitals to surrounding population is that of a kind which is at the present day quite unusual when isolation of small-pox is in question; experience having led to general disuse for small-pox of hospitals having large amount of dwellings in their neighbourhood.
>
> Experience of the sort in question, which is well known, has demonstrated that excessive incidence of small-pox on populous areas in the vicinity of a hospital receiving a plurality of acute cases of the disease is no unusual occurrence and it can hardly be doubted that the relationship between the operations of these hospitals and the excessive small-pox incidence in their neighbourhood is one of cause and effect. Further, it has been strongly indicated from careful study of various instances of "small-pox hospital influence" that explanation of extra incidence of small-pox around such hospital, by assumption of hospital mismanagement or of lack of precautions in regulating the necessary traffic and business of the establishment, does not suffice to account for the facts. The generally accepted and, so far as I am aware, the only completely satisfactory explanation of the peculiarities of small-pox incidence around hospitals receiving acute cases of the disease is dissemination of infection by aerial convection; an explanation introduced many years ago by Mr. W. H. Power, the Board's present medical officer, after detailed study of the behaviour of small-pox around Fulham and other London hospitals. He held that particulate matter capable of conveying infection, escaping into the air from the wards of a small-pox hospital, does on occasion and in suitable atmospheric conditions become wafted to considerable distances from such hospital. "Hospital influence" in this sense has been traced in certain instances where circumstances allowed the study to be made in respect of inhabited areas, as far as one mile from the hospital; by some observers it has been thought to have been traceable, though to a much less degree, on inhabited areas situated even further than a mile from the hospital. It has not, of course, been affirmed that, whenever acute cases are admitted to a small-pox hospital situated near a populous area, demonstration of aerial convection will certainly be forthcoming if only the facts be strictly studied. There is ground, indeed, for belief that a small-pox hospital in a populous area does not as a result of its actual operations *always*, whether aerially or otherwise, distribute small-pox in conspicuous fashion in its neighbourhood; and perhaps opinion has come to be entertained in some quarters that disadvantage such as accrued from Fulham and other small-pox hospitals may be regarded as the exception, not the rule. Similarly there has, when emergency has resulted in compulsory use as it were for small-pox of a hospital in a populous neighbourhood, arisen a tendency to minimise any mischief which may be alleged to be due to the hospital. A demonstration, therefore, of absence of spread of small-pox from hospital in the case of Liverpool, where three hospitals, two of them in the city, were receiving acute small-pox cases and where in particular one of the hospitals (Park Hill) for a period of some 24 weeks at the height of the epidemic received acute small-pox patients in large numbers, would, if established, be not only particularly interesting to epidemiologists but in its administrative aspects would be reassuring to small-pox hospital authorities.

The labour devoted to this inquiry by Dr. Reece and by the officials of the Liverpool corporation who assisted him in ascertaining the facts must have been enormous. The local distribution of small-pox in Liverpool is shown in this report by a series of tables and diagrams, while a set of 23 "spot maps" is supplied which show the position of each house newly invaded by small-pox during each fortnight of the two years in question. With these aids Dr. Reece has succeeded in giving a concise account of the subject in the small compass of 15 pages which should be read by all interested in the question; they are themselves too condensed to admit of any adequate abstract. The result, as regards "hospital influence," is certainly striking. During 1902, when Priory-road hospital sufficed for all the cases of small-pox the proportion of houses invaded by small-pox in the whole of Liverpool, more than a mile from that hospital (including the neighbourhoods of Park Hill and Fazakerley hospitals), was 1·6 per 1000; within a mile of Priory-road hospital the corresponding rate was 2·7; within three quarters of a mile, 3·3; and within half a mile, 6·8. The next period, Dec. 7th, 1902, to June 20th, 1903, was one of full activity at all three hospitals. Houses in Liverpool more than a mile from any one of these hospitals during these months were invaded by small-pox at the rate of 8·6 per 1000; those

[1] London, Wyman and Sons, Fetter-lane; Edinburgh, Oliver and Boyd; Dublin, E. Ponsonby. Price 2s. 6d.

within a mile of any one of these hospitals were invaded at the rate of 11·5; within half a mile at the rate of 22·2; and within a quarter of a mile at the rate of 41·5 per 1000. Dr. Reece gives tables showing for each hospital the invasion-rate respectively of houses distant 0–¼ mile, ¼–½ mile, ½–¾ mile, and ¾–1 mile from the hospital. For each hospital there are clear indications of the graduation in incidence which is so conspicuous a feature of "small-pox hospital influence." The details given in Dr. Reece's tables show that in the case of Park Hill, a large hospital receiving many cases at the height of an epidemic, the excessive incidence of small-pox on the surrounding neighbourhood was very remarkable and persistent. It commenced some six weeks after the hospital had begun to receive cases of small-pox and it continued until the hospital was finally closed for small-pox. Dr. Reece concludes that:—

1. Inhabited areas within a mile of each of the three Liverpool small-pox hospitals have suffered more severely from small-pox than the city as a whole.
2. Exceptional incidence of small-pox within these areas has corresponded in point of time with the use of these hospitals for the treatment of acute small-pox cases.
3. Broadly speaking, within these hospital areas the dwellings nearer to hospital have sustained a far heavier incidence of small-pox than those further away.

Fazakerley hospital, situated practically in the country and with comparatively few houses within a mile of it, appears to have caused an excess of small-pox in its neighbourhood, which, in its degree, was as severe as that which was caused by the other two hospitals in the city. This is a noteworthy point, although, as Dr. Reece points out, too much stress must not be laid upon invasion-rates in this instance, as they are necessarily derived from small figures. Another interesting indication of this inquiry is that the small hospital of Priory-road appears to have influenced the rate of invasion of houses in its neighbourhood to a smaller extent relatively than the larger hospitals of Park Hill and Fazakerley. The whole circumstances of these occurrences, so closely parallel to those met with in other outbreaks round small-pox hospitals situated in populous neighbourhoods, tend to support the presumption that the exceptional prevalence of the disease round the hospitals has been due, as Mr. Power suggested long ago, to infection having from time to time been carried by means of local air currents in suitable states of the atmosphere from the hospital to houses in its vicinity. It is hardly possible to frame a theory of personal infection, implying, among other things, continuous bad administration at each of the hospitals in question, which would sufficiently explain the facts. And it may almost be assumed that in Liverpool, with its excellent organisation to deal with infectious diseases, the risk of spread of small-pox by means of carelessness of hospital staff or negligence on the part of those concerned in ambulance or disinfection work must have been greatly minimised, if it was not absent altogether. Dr. Reece gives ample testimony in his report to the general excellence of the system adopted in these directions under the able administration of Dr. E. W. Hope, the medical officer of health of the city.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 76 of the largest English towns 8827 births and 4300 deaths were registered during the week ending May 20th. The annual rate of mortality in these towns, which had been 16·5, 15·4, and 15·0 per 1000 in the three preceding weeks, further declined last week to 14·4 per 1000. In London the death-rate was 14·1 per 1000, while it averaged 14·5 per 1000 in the 75 other large towns. The lowest death-rates in these towns were 6·0 in King's Norton, 7·3 in Wolverhampton, 7·4 in Hornsey, 7·8 in Barrow-in-Furness, 8·7 in Rotherham, and 8·9 in East Ham and in Norwich; the highest rates were 19·2 in Rhondda, 19·8 in Merthyr Tydfil, 25·1 in West Bromwich, 24·4 in Tynemouth, 22·5 in Preston, and 26·0 in Middlesbrough. The 4300 deaths in these towns included 442 which were referred to the principal infectious diseases, against 460, 469, and 401 in the three preceding weeks; of these 442 deaths, 178 resulted from measles, 129 from whooping-cough, 50 from diarrhœa, 43 from scarlet fever, 29 from diphtheria, 18 from "fever" (principally enteric), and one from small-pox. In Hornsey, Hastings, Bournemouth, King's Norton, Bolton, Rochdale, Swansea, and in six other smaller towns no death from any of the principal infectious diseases was registered; whilethe highest death-rates from these diseases occurred in Leyton, West Bromwich, Smethwick, Coventry, Warrington, and Sheffield. The greatest proportional mortality from measles was recorded in West Bromwich, Smethwick, Coventry, Wigan, Warrington, Sheffield, Rhondda, and Merthyr Tydfil; from whooping-cough in Willesden, Tottenham, Leyton, Smethwick, Aston Manor, Preston, South Shields, Tynemouth, and Newport (Mon.); and from diarrhœa in West Ham, West Bromwich, and Grimsby. The mortality from scarlet fever, from diphtheria, and from "fever" showed no marked excess in any of the large towns. One fatal case of small-pox was registered in London but none in any other of the large towns. The number of small-pox cases under treatment in the Metropolitan Asylums Hospitals, which had been 17 at the end of each of the two preceding weeks, had declined to 15 at the end of last week; three new cases were admitted during the week, against four, four, and two in the three preceding weeks. The number of scarlet fever cases in these hospitals and in the London Fever Hospital, which had been 2182, 2152, and 2177 on the three preceding Saturdays, had further risen to 2211 on Saturday last, May 20th; 319 new cases were admitted during the week, against 255, 235, and 319 in the three preceding Saturdays. The deaths in London referred to pneumonia and diseases of the respiratory system, which had been 306, 256, and 251 in the three preceding weeks, further declined to 226 last week, but were 16 above the number in the corresponding period of last year. The causes of 49, or 1·1 per cent., of the deaths registered in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Salford, Leeds, Hull, Newcastle-on-Tyne, and in 44 other smaller towns; the greatest proportions of uncertified deaths occurred in Birmingham, Coventry, Rochdale, Blackburn, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 18·8, 18·0, and 19·5 per 1000 in the three preceding weeks, declined again to 16·7 per 1000 during the week ending May 20th but was 2·3 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 8·9 in Greenock and 10·7 in Perth to 17·2 in Dundee and 19·4 in Glasgow. The 560 deaths in these towns last week included 26 which were referred to measles, 25 to whooping-cough, 19 to diarrhœa, three to diphtheria, two to "fever," and one to scarlet fever, but not any to small-pox. In all 76 deaths resulted from these principal infectious diseases last week, against 59, 67, and 83 in the three preceding weeks. These 76 deaths were equal to an annual rate of 2·3 per 1000, which was 0·8 per 1000 above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of measles, which had been 21, 16, and 32 in the three preceding weeks, declined again last week to 26, of which 21 were registered in Glasgow and five in Edinburgh. The deaths from whooping-cough, which had been 27, 26, and 30 in the three preceding weeks, decreased to 25 last week, and included 18 in Glasgow, two in Dundee, two in Paisley, and two in Greenock. The fatal cases of diarrhœa, which had been eight, 15, and nine in the three preceding weeks, rose again last week to 19, of which 11 were registered in Glasgow, three in Aberdeen, two in Edinburgh, and two in Dundee. The deaths from diphtheria, which had been four and six in the two preceding weeks, declined again to three last week and included two in Edinburgh. The two fatal cases of "fever" occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 121, 132, and 108 in the three preceding weeks, further declined last week to 83, and were 14 below the number in the corresponding period of last year. The causes of 16, or nearly 3 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·9, 22·0, and 23·7 per 1000 in the three preceding weeks, declined again to 19·5 per 1000 during the week ending May 20th. During the

past four weeks the death-rate has averaged 21·8 per 1000, the rates during the same period being 14·8 in London and 17·1 in Edinburgh. The 142 deaths of persons belonging to Dublin registered during the week under notice were 30 below the number in the preceding week and included six which were referred to the principal infectious diseases, against eight in each of the three preceding weeks; of these, three resulted from diarrhœa, two from measles, and one from whooping-cough, but not any from small-pox, scarlet fever, diphtheria, or "fever." These six deaths were equal to an annual rate of 0·8 per 1000, the death-rates last week from the principal infectious diseases being 1·3 in London and 1·9 in Edinburgh. The three fatal cases of diarrhœa corresponded with the number in the preceding week; and the deaths from whooping-cough, which had been two, three, and four in the three preceding weeks, declined again last week to two. The 142 deaths in Dublin last week included 36 of children under one year of age and 38 of persons aged 60 years and upwards; the deaths of infants considerably exceeded the number in the preceding week, while those of elderly persons showed a marked decline. Four inquest cases and five deaths from violence were registered; and 48, or more than a third, of the deaths occurred in public institutions. The causes of ten, or more than 7 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet Surgeons: E. C. Ward to the *Carnarvon* and H. E. South to the *Emerald* (to date May 25th).

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned gentlemen have been appointed Officers, viz.:—Henry Reah to be Surgeon (dated May 15th, 1905) and George Robert Harland to be Surgeon (dated May 17th, 1905).

ROYAL ARMY MEDICAL CORPS.

Major F. J. Wade-Brown, from Gosport, and Captain H. O. B. Browne-Mason, from India, are appointed to the London District for duty, and Lieutenant-Colonel F. J. Lambkin is appointed for duty to the London Military District. Major McCormack, retired pay, assumes medical charge of troops and Military Hospital, Omagh. Colonel R. H. Quill, who has been promoted to Surgeon-General, is appointed Principal Medical Officer at Netley.

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion the Queen's (Royal West Surrey Regiment): Surgeon-Captain (Captain, Army Medical Reserve of Officers) T. F. Devane resigns his commission (dated May 24th, 1905). 4th Volunteer Battalion the Royal Fusiliers (City of London Regiment): Henry Macnaughton Macnaughton-Jones (late Surgeon-Lieutenant, 1st Middlesex Royal Engineers (Volunteers)), to be Surgeon-Captain, and is borne as Supernumerary whilst commanding the Bearer Company of the 1st London Volunteer Infantry Brigade (dated April 22nd, 1905). 1st Volunteer Battalion the Suffolk Regiment: Supernumerary Surgeon-Lieutenant-Colonel G. S. Elliston (Brigade-Surgeon-Lieutenant-Colonel, Senior Medical Officer, Harwich Volunteer Infantry Brigade) is granted the honorary rank of Surgeon-Colonel (dated May 19th, 1905). 4th (Hunts) Volunteer Battalion the Bedfordshire Regiment: Charles Archibald Lees (formerly Captain) to be Surgeon-Lieutenant (dated May 19th, 1905). 4th Volunteer Battalion the South Wales Borderers: Surgeon-Lieutenant-Colonel S. B. Mason is granted the honorary rank of Surgeon-Colonel (dated May 19th, 1905). 3rd Lanarkshire: John Wilson Leitch to be Surgeon-Lieutenant (dated May 19th, 1905). 22nd Middlesex (Central London Rangers): William Lloyd to be Surgeon-Lieutenant dated April 17th, 1905).

THE SHORTAGE OF OFFICERS FOR THE ARMY.

Public attention has been directed by the press of this country to the declining supply of candidates for commissions in the army, which is said to be engaging the serious attention of the War Office at the present time. The *Standard* of May 11th had a leading article on the subject which apparently went to the main roots of the matter—namely, that while, on the one hand, the army, now that it has become a hard-worked and irksome profession, has ceased to draw the more moneyed class of young men who have hitherto been attracted to it as on the whole an adventurous and pleasant life with the chance of seeing active service and of distinguishing themselves in the field; it has, on the other hand, but little to offer in the way of present income and future prospects to those of smaller means whose ambition it is in joining the army to make it truly their calling in life. To such and to their parents it does not, in the language of the day, seem "good enough" when compared with other professions and callings. And to all alike there are the "uncertainty of tenure" and prospects and the loss of confidence engendered by the frequent changes that have taken place of late years. That patriotism, the warlike spirit, and love of adventure are as strong as ever is proved by the fact that there is never any lack of volunteers for field service in time of war. But there is one thing which has been omitted and must be added to these reasons for it has a very important bearing. It is the disheartening effect of the growing tone of disparagement or even of imputed blame in which the services of the "regulars" seem to be nowadays regarded in almost every campaign. Officers of the Army Medical Service can speak feelingly on this subject, for by way of recompensing them for all their labours at the end perhaps of an arduous campaign they have had to vindicate their corps before some War Office committee or other. It seems to be altogether forgotten that they could only use the hospital material placed at their service and conform to the official regulations in force. In these respects their department was on an altogether different plane from that occupied by voluntary aid societies. And in the case of the troops of the regular army the officers had often to encounter, as in the case of the South African war, much hardship and risk of life in carrying out perhaps the orders of some possibly incompetent general only to find themselves at the end of the war characterised as "stupid" or as after all "unprofitable servants."

EMPIRE DAY: THE ROYAL ARMY MEDICAL CORPS WAR MEMORIAL.

May 24th, the anniversary of the birth of Queen Victoria, now known as Empire Day, was celebrated with much enthusiasm throughout the kingdom. The King at Aldershot witnessed a sham fight on Frensham Common and subsequently unveiled a memorial to members of the Royal Army Medical Corps who gave their lives for the cause of their country in the South African campaign. At St. Paul's Cathedral the Prince of Wales unveiled a memorial to the colonial troops who fell in the same war. The memorial to the Royal Army Medical Corps is built of granite and bronze panels bear the name of every man who died during the war in South Africa. An inscription reads: "To those who gave their lives for their country." We hope to refer more fully to the ceremony in a subsequent issue.

DEATHS IN THE SERVICES.

Colonel Henry Comerford, R.A.M.C. (retired), recently, aged 61 years, at Charing Cross Hospital, where he had been removed from the Craven Hotel, Craven-street, Strand. He entered the service as assistant surgeon in 1866, was promoted to surgeon in 1873, surgeon-major in 1878, surgeon-major ranking as lieutenant-colonel in 1886, brigade-surgeon in 1892, and colonel in 1896, retiring in 1902. He served in the Zulu campaign of 1879 and took part in the battle of Ulundi (medal and clasp), and also in the late Transvaal campaign, when he was present at the defence of Pretoria (mentioned in despatches).

Lieutenant-Colonel C. B. Hill, R.A.M.C., on May 7th, at Guy's Hospital, aged 50 years. He entered the service as a surgeon in 1880, was promoted surgeon-major in 1892, and lieutenant-colonel in 1900. He took part in the Waziri Expedition in 1881.

THE VISIT OF BRITISH MEDICAL MEN TO PARIS.

The military hospitals in Paris were visited by Surgeon-General A. H. Keogh, C.B., Director-General of the Army Medical Service, by Lieutenant-Colonel M. W. H. Russell, Deputy Assistant Director-General of the Army Medical Service, and by Lieutenant-Colonel B. M. Skinner, Secretary to the Army Medical Advisory Board. These gentlemen were

personally conducted by Dr. Strauss, the Inspector-General of the French military hospitals.

THE WAR IN THE FAR EAST.

There has been heavy rain following a dust storm in Manchuria, rendering the roads bad and impeding transport. There are signs of extensive movements of Marshal Oyama's forces and skirmishes are reported by both sides. In these the casualties seem on the whole to preponderate on the side of the Russians and are gradually mounting up. The deaths from disease in their army since the war began must have reached a heavy total as compared with those in the Japanese armies. Notwithstanding that the next battle threatens to take place between the hostile armies public interest and speculation have been transferred from the land forces to the fleets in consequence of its being universally recognised how much hinges upon the results of the impending operations at sea. It will obviously be of the greatest interest and importance to the naval powers generally to see what arrangements are made for the disposal of the sick and the wounded in the event of the occurrence of any naval engagement.

According to the *Novosti*, Professor D. O. Ott has been ordered to join the acting Russian army for four months. His special mission is to investigate the nature of medical organisation in the army.

Correspondence.

"Audi alteram partem."

DIABETES AND THE THYROID GLAND.

To the Editors of THE LANCET.

SIRS,—In his very instructive Goulstonian lecture on Diabetes Mellitus, published in THE LANCET of April 22nd, p. 1053, Dr. W. C. Bosanquet says: "Lorand states that it is chiefly in female diabetics that actual enlargement of the thyroid is present; though why the other sex should not also exhibit the same alteration is not clear." May I be allowed to make a few remarks on the subject? According to George Murray, the thyroid of women is bigger than that of men. I do not think it improbable that this may be in connexion with the fact that there exist very intimate relations between the ovaries and the thyroid, demonstrated clearly by the frequency of the swelling of the thyroid in consequence of defloration, conception, during puberty, menstruation, pregnancy, lactation, and the climacterium (menopause). Thus the female thyroid is more exposed to hyperfunction than the male one, and this might also be the cause of the greater frequency of goitre, of Graves's disease, and of myxœdema in women. I should also like to add that the median lobe of the thyroid is in the great majority of cases more developed in women than in men; its swelling can thus be easier seen and felt than that of the lateral lobes which are more covered by musculature.

It is certainly not easy to judge the condition of a thyroid by its external appearance. Sometimes a thyroid may not be seen or felt and still there might be at the necropsy a very big thyroid. As generally accepted Graves's disease is a condition of hyperthyroidia (hyperactivity of the thyroid) and still there are not so rarely cases of Graves's disease where no big thyroid can be seen or felt. On the other hand, the big size of the cretin's thyroid is no proof of its good working condition. Hence the only reliable proof of the functional activity of the thyroid as of other glands can be gained merely by its histological examination. As I stated in my paper before the London Pathological Society on Feb. 21st last I have found in the thyroid of four diabetic dogs alterations that resembled those found by Chalmers Watson[1] in fowls fed for a certain time only on animal food.

May I also be allowed to say a word on the rarity of diabetes in myxœdema? As Dr. Pavy has stated in his discussion with me in the Pathological Society he has never seen a case of myxœdema with diabetes; and in the description of the three cases of the Philadelphia County Medical Society which he kindly lent me, the author himself admits that two cases were not pronounced "and the third case was irregular." After having looked through the literature on the subject I have only found two cases of myxœdema with diabetes, those of Ewald[2] and Béclère.[3] In both cases diabetes had been the consequence of thyroid medication in big doses.

I am, Sirs, yours faithfully,

Carlsbad, May 15th, 1905. DR. ARNOLD LORAND.

[1] THE LANCET, Feb. 11th, 1905, p. 347.

[2] Berliner Klinische Wochenschrift, 1895, No. 2, Jan. 14th.

[3] Société Médicale des Hôpitaux, Oct. 12th, 1894, and Gazette Médicale de Paris, 1894, p. 41a.

TO MEDICAL FREEMASONS.

To the Editors of THE LANCET.

SIRS,—May I, through the medium of your widely read journal, thank the many medical Freemasons and others who sent me their votes for the medical candidates at the recent elections of the different Masonic charitable institutions? The success of these candidates is largely due to the hearty response to my appeal in THE LANCET of March 25th and must be very gratifying to those who were interested in the cases. The results are as follows:—

Royal Masonic Institution for Girls.—Eileen Torrens, successful with 5591 votes; Mary Trevor Webster unsuccessful.

Royal Masonic Institution for Boys.—Charles Hughes, successful with 5309 votes; Alfred Burns, successful with 3709 votes; Cyril Hockley unsuccessful.

Royal Mason Benevolent Institution.—Joseph Rickets, successful with 3602 votes; Elinor Gartley, successful with 3355.

I am, Sirs, yours faithfully,

HAROLD S. SINGTON,

Secretary, St. Luke's Medical Lodge of Instruction.

44, St. Mary's Mansions, W., May 22nd, 1905.

THE FINANCIAL RELATIONS OF THE LONDON HOSPITALS AND THEIR MEDICAL SCHOOLS.

To the Editors of THE LANCET.

SIRS,—In a leading article in THE LANCET of May 20th, p. 1362, in which reference is made to the arrangement that has been come to between the Westminster Hospital Medical School and King's College for the teaching of the preliminary and intermediate subjects of the curriculum at the latter institution, it is stated that the arrangement has been made with King's College *Medical School*, and not as should have been said with the *Science Department* of King's College, which has no necessary connexion with the Medical School. As this statement might possibly lead to some misunderstanding as to the relations between the two medical schools I should be much obliged if you can find room in your next issue for this correction.

I am, Sirs, yours faithfully,

E. PERCY PATON,

Dean of Westminster Medical School.

Park-street, Grosvenor-square, W., May 22nd, 1905.

A PLEA FOR THE RECOGNITION OF THE TREATMENT OF DISEASE BY INTRAVENOUS INJECTIONS.

To the Editors of THE LANCET.

SIRS,—In the report of the discussion on the above subject at the meeting of the Edinburgh Medico-Chirurgical Society held on May 3rd—1. It was not a *single* but *six* injections of a 1 in 2000 solution of CH_2O in physiological solution which affected the temperature in the case of oral sepsis. It brought it down from 104·5° to normal in nine days. Each injection was 110 cubic centimetres. 2. While the tuberculous abscess was quite cured as reported the patient some months later broke down and died from a practically general tuberculosis. Had she remained well permanently the power of arresting recent acute tubercle with CH_2O intravenously would have been phenomenal. Still the immediate success in this case with "Maguire's" solution was brilliant. 3. I am also reported as having said that the presence of apical scars or caseous nodules was not proof of the curability of *pulmonary tuberculosis*. The term I used was *phthisis* not pulmonary tuberculosis, and I further explained my meaning by stating that I referred to the

condition after the necrotic process has begun and *phthisis* is a clinical entity. These points are of some importance and I trust that you will be good enough to give space to them.

I am, Sirs, yours faithfully,
THOMAS W. DEWAR.

Kincairn, Dunblane, N.B., May 22nd, 1905.

FIFTH ANNUAL SOUTH AFRICAN CIVIL SURGEONS' DINNER.

To the Editors of THE LANCET.

SIRS,—Through the medium of your journal we should like to call attention to the above dinner, which will take place on Tuesday, July 4th, at 8 o'clock, at the Imperial Restaurant, Regent-street. Mr. W. Watson Cheyne, C.B., has kindly consented to take the chair. Reply cards will be sent to those whose addresses are available and we hope that those who wish to attend will reply as soon as possible. The price of the dinner will be 10s. 6d. (exclusive of wine).

We are, Sirs, yours faithfully,
FRANCIS E. FREMANTLE,
C. GORDON WATSON, } Honorary Secretaries.

44, Welbeck-street, W., May 24th, 1905.

UNPAID AS USUAL!

To the Editors of THE LANCET.

SIRS,—I received a few days ago a letter from the senior medical officer of the volunteer infantry brigade to which I belong. I inclose a copy of it.

A number of volunteer medical officers will be required for duty in the station hospitals of the regular army during the training season (May to August). Those officers would not, *of course* [the italics are mine], receive pay nor would any expense to the public be admissible, hence their attendance must be entirely voluntary. Should you be willing, &c.

Comment is, perhaps, superfluous, but one cannot help observing what an encouragement such a proposal must be to the volunteers to perfect themselves as a reserve to the regular forces. Do our colleagues in the Royal Army Medical Corps serve during the training season without pay and with no expense to the public?

That such an offer can be seriously made to qualified medical men with, presumably, some idea of a more or less favourable response points to the urgent necessity of some strong professional combination, while the fact that the War Office considers it probable or even possible that commissioned officers of the auxiliary forces may be willing to perform public duties without any expense to the public, but at a considerable loss to themselves, and alongside officers of the regulars and militia who are drawing full rates of pay and allowances for the performance of the same duties, only indicates the utter futility of any hope of any improved position for the volunteer or any practical recognition of him as a genuine factor in any scheme of national defence. It is to be devoutly hoped that volunteer medical officers with any respect for their profession or for the force to which they belong will have nothing to do with this proposal.

I am, Sirs, yours faithfully,
A. M. R.

May 20th, 1905.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Physique of Salford Children.

Mr. C. H. Tattersall, the medical officer of health of Salford, and the assistant medical officer, Dr. J. J. Butterworth, give interesting reports on the medical work done by them in 1904 for the Salford education committee. There are 4000 children in Salford attending school who are under five years of age and Mr. Tattersall agrees with many others who have studied the question that the attendance of these children should be discouraged, believing that "the sixth year is early enough for a child to attend school." There is considerable difference in the social condition of the neighbourhoods in which the six schools selected for observation are situated and the schools differ considerably also. 1. Boys chiefly from the class of clerks, warehousemen, and shop keepers. The boys are clean, well nourished, and sufficiently clothed. The school is surrounded by a large open space and has a very large playground. 2. Boys chiefly the sons of unskilled labourers. Clothing is deficient both in quality and quantity, not one boy wearing an under-vest. Vermin are very prevalent. 3. Boys from the skilled artisan class and latterly a good many children of dock labourers. The neighbourhood has of late become thickly populated. 4. Scholars chiefly from the skilled artisan and clerk class. They are well dressed and nourished, each boy wearing two garments, an under-vest and shirt. The school is close to a large park. 5. Here the boys are chiefly the sons of mill-workers. They are well but roughly clothed and well nourished. There is a large playing field attached to the school. 6. This school is situated in what is still regarded, in spite of some improvement in late years, as the worst district in Salford. It is, as one would expect, densely populated. In these six schools, three of a better and three of a poorer class, records were taken of the height, weight, and chest girth of all the boys between the ages of seven years and nine months and eight years and three months, between nine years and nine months and ten years and three months, and between 12 years and nine months and 13 years and three months. This gave three age periods approximately of eight, ten, and 13 years. As would be expected, in the three higher class schools—i.e., in those where the social conditions and the surroundings are comparatively more favourable for healthy existence—the physique is better than in the three poor schools. At the age of eight years all are fairly equal, but at 13 years there are marked differences. As showing that something more than mere social condition affects the result there is a seeming exception in the case of No. 5 school which stands at the top of the list as to physique, although the boys are roughly clothed children of mill-workers. They are, however, well fed and "attached to the school is a large playing-field" in an open situation. This appears the chief factor likely to account for the better growth and development of the No. 5 boys, who at 13 years of age are two and a third inches taller and 13 pounds heavier than those of No. 3 school, the latter being chiefly the sons of skilled artisans. Over those of No. 6 school they have the advantage of being nearly four inches taller and about 14 pounds heavier. As these boys will most of them earn their living by bodily work the advantage at the start should always keep them in front of those less favoured. In accounting for the marked superiority of the boys in No. 5 school it may be mentioned that the district is one where the social and moral tone is somewhat above the average. "More than 90 per cent. of the children attend Sunday school," the people keep early hours, and "the children are abed betimes." As Mr. Tattersall says, improper feeding and under-feeding have marked consequences; where the people are poor and the children are badly fed the physique shows the natural result. On the other hand, he does not blame the mothers for want of care of their young children and he finds that more than 90 per cent. of these have been breast-fed. These working class mothers set a good example to those in more comfortable positions. There has been of late considerable improvement in this respect, for three or four years ago only 70 per cent. of these Salford mothers fed their children from the breast. He advocates "breast-feeding and teetotalism on the part of the mothers." Some of the schools are well provided with facilities for out-door play but others are not. No. 6 school, where the children are "dirty, badly clothed, and ill-nourished" and where "a large proportion showed distinct signs of rickets," is situated in Greengate, the worst district in Salford and has none of these advantages close at hand, and the children would rather play in a dirty crowded slum near home than in a park at a distance. Now that attention is so much directed to this question it is to be hoped that sensible measures will be taken to improve as much as possible the evil influences of our manufacturing towns on the physique of their inhabitants. It is a matter of the gravest import to the future of our race and it will be a sorry result of our civilisation if "men decay." Although there are some encouraging facts it is not cheering, to quote the words of a careful observer, that "the average of child physique is lower in Salford than in any town in Great Britain of which record has been taken, with the possible exception of Rochdale." Our sanitarians have plenty of work before them in the improvement of hygienic conditions, while our moral sanitarians have a harder and, perhaps, more important task still in helping the people to understand and to live a higher life physically than the groveller in the slums ever dreams of.

The Black Smoke Nuisance.

It is a very common thing for manufacturers to be fined for allowing black smoke to be sent out from their chimneys and they often pay the fines gladly rather than adopt the means necessary to abate the nuisance. But it is not so common for the sanitary department of the Manchester corporation to summon the electricity department, that one of all others that was to do away with black smoke and to convert Manchester from what it is to a place of sweetness and light. This department, however, has a tall chimney which recently emitted black smoke to such a degree as to render a summons necessary. The resident engineer said that it was caused by certain experiments. Perhaps he might vary the experiments a little and try to make some with the object of lessening, and not increasing, the production of smoke. An order to abate in 28 days was made so that there is time for some fresh experiments.

Oswaldtwistle's Low Birth-rate.

Low birth-rates are becoming so general as to increase the seriousness of the nation's outlook. Dr. A. E. Townley, the medical officer of health, states that during the past year the birth-rate of Oswaldtwistle was 21·91 per 1000, compared with 28·87, the average for the last ten years. He complains also that the smoke nuisance has an effect on the number of deaths from bronchitis. The infantile death-rate was 191 per 1000, the highest, with two exceptions, for the last ten years. It is difficult to imagine the manufacturing districts of Lancashire free from the defilement of black smoke, but what a much happier and healthier land it would be with its streams clean and its vegetation and beauty restored.

Duck Pond or Plunge Bath?

It is reported that in Milnshaw Gardens, Accrington, there is a piece of water which was originally intended for, and used as, an open-air plunge bath but is now called a duck pond. This suggests a habitat where the larvæ of gnats luxuriate but there is no intimation of the presence of the pernicious anopheles. However this may be, there seems to be full justification for the recommendation to the town council "to clean out its duck pond in Milnshaw Gardens and restore it to its original use as an open-air plunge bath." Town councils, whether Progressive or Moderate, have to be reminded occasionally that some simple sanitary measures are as desirable in English boroughs as in West African swamps and it is well worth some little trouble to lessen the swarms of our English gnats which are often a great nuisance and in days gone by caused widespread sickness, from the danger of which we are not altogether free.

May 21st.

LEEDS.

(FROM OUR OWN CORRESPONDENT.)

A New Inebriate Reformatory.

UNDER the conditions of the Act of 1898 a certified inebriate reformatory has just been opened at Cattall, which is situated about midway between York and Harrogate and where an excellent site of about 50 acres in an elevated situation has been secured. The cost of the undertaking will, it is expected, amount to about £50,000, which includes the sum of £4750 paid for the land. As the joint committee charged with the undertaking is representative of the county councils of the three Ridings and the councils of the county boroughs of Bradford, Halifax, Hull, Leeds, and York, it is calculated that it will only require a rate of $\frac{1}{10}$th of a penny in the £ to meet the payment of the £2550 required for interest and sinking fund charges on a thirty years' loan. The expenses of maintenance will, after the first 12 months, be met by the separate authorities in proportion to the number of inebriates committed from their areas. Accommodation has in the first instance been provided for 80 inebriates, but the central administration block has been made large enough to meet an increase to 300. The accommodation takes the form of detached cottage homes each providing for 20 cases in two groups of ten each. A separate bedroom is provided for each inebriate. Three of the cottages are to be devoted to women and the fourth will provide accommodation for 20 men. Lord Wenlock, in declaring the institution open, pointed out that there were three different kinds of institutions for dealing with inebriates. These were the inebriate retreats of the Act of 1879, the State inebriate reformatories, and the certified inebriate reformatories, of which that which he had declared open was an example. It was intended for the reception of those who, being habitual drunkards, had been convicted of crime, either when they were under the influence of drink or where drink was found to have been a contributory factor, as well as for those who had in one year been convicted four times of certain offences of drunkenness. The institution is of course intended for reformation treatment and a circular has been issued by the committee appealing to magistrates in these terms: "If for the next five years magistrates will only commit in proper cases, and, irrespective of results, recommit when necessary, some approach towards proving the ut lity of the institution may be made; but if judicial authorities hesitate because the percentage of good results is at present small, especially amongst the early cases which they may send, then a necessary work will be hindered."

May 23rd.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

The Medical Officer of Health of Chipping Sodbury.

THE circumstances attending the election of a local practitioner as medical officer of health of the rural district of Chipping Sodbury, near Bristol, in succession to Dr. Francis T. Bond, who has held the position for 32 years, have already been related in THE LANCET.[1] At a meeting of the district council held on May 17th a letter was read from the Local Government Board regretting the withdrawal of the district from the combination which had for many years elected a joint medical officer of health and stating that the Board was anxious that the situation should be discussed by representatives of the various districts concerned and had accordingly asked the clerk to the Gloucester district council to call a meeting of such representatives. The district council decided not to send any representatives to the conference and adopted the following motion:—

That the Local Government Board be informed that, inasmuch as Dr. Thomson came and freely discussed the matter with this council, we fail to see what purpose would be served by the proposed meeting and forthwith call upon the Local Government Board to sanction the appointment of our nominee.

At a meeting of the Gloucestershire branch of the British Medical Association held at Gloucester on May 18th it was resolved:—

That it is desirable in the interests of the medical profession generally that in any locality in which an attempt is made by any public or other organised body to treat their medical officers or employés with injustice the local members of the profession should loyally combine to support their menaced brethren.

And a further resolution was also carried unanimously, on the proposition of Dr. J. Middleton Martin and Dr. G. B. Ferguson, instructing the branch representatives to urge upon the council of the Association the necessity for pressing on the Public Health Bill giving fixity of tenure to medical officers of health.

Death from Lead Poisoning.

Deaths from lead poisoning contracted during industrial pursuits are of sufficient rarity to merit notice. A man, 36 years of age, died from this cause in Bristol on May 1st. He was a silver refiner and was engaged in extracting silver from lead. He had been employed for many years at the same work and in 1899 had an attack of lead colic. Epileptic convulsions were the most prominent symptoms immediately preceding death. Sufficient washing accommodation as required by the special rules relating to dangerous trades appears to have been provided at the works in which the deceased man was employed and he is said to have been of cleanly habits.

University College, Bristol.

Nearly 1500 persons were the guests of the council and staff of University College, Bristol, in the new College buildings on the occasion of the triennial conversazione on May 19th. Professor Stanley Kent during the evening made a series of experiments illustrating the fatigue of muscles, pulse tracings, colour blindness, and finger prints. Demonstrations of the process of making liquid air were given by

[1] THE LANCET, April 15th (p. 1035) and 29th (p. 1146), 1905.

Professor Travers who also explained the working of the hydrogen liquefier. In the chemical laboratory there was an exhibition of minerals, alkaloids, drugs, and artificial colouring matters and there was elsewhere a large collection of modern scientific apparatus.

The Medical Officer of Health of Gloucester.

Mr. W. More Hope, who was recently elected medical officer of health of the city of Gloucester, was appointed without reference to any specified period and the Local Government Board has now sanctioned his appointment in the first instance for one year and provided the city council at the end of the year still desires it the Board will sanction the permanent appointment.

Taunton Isolation Hospital.

The Taunton isolation hospital is under the dual control of the Taunton town council and the Taunton rural district council. Recently this arrangement does not seem to have worked very satisfactorily and Dr. H. J. Alford, the medical officer to the hospital, tendered his resignation. At the meeting of the Taunton town council held on May 17th the matter came under discussion and eventually the following motion was carried:—

That this council express their sympathy with Dr. Alford on the treatment which has led to his resignation and decide not to accept it. That the council considers the dual control of the hospital is not working satisfactorily and authorise their committee to bring up a report as to the expediency of the council taking over the sole ownership and management of the institution.

May 23rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Free Food for School Children.

IN connexion with the Education Bill for Scotland at present before Parliament considerable discussion has taken place among those interested on the subject of free food for school children. At a conference in Glasgow held under the auspices of the committee of the Queen Margaret Settlement and the Charity Organisation Society a letter was read from the medical officer of health of Glasgow in which he said that one of the most interesting revelations of the present school inquiry was that the fatherless child in one-apartment families was better cared for—i.e., better clothed, better fed, and cleaner—than the one-apartment child whose father was alive. This seemed to him to emphasise the need for the feeding of children on a much larger scale than had hitherto been attempted. If the figures obtained in the inquiry had any significance it lay in the suggestion that the underfed child was educationally on a low level and was likely to become industrially inefficient in later years. The Glasgow trades council, in discussing the same question, by a large majority supported a resolution in favour of the feeding of all school children, the argument urged in favour of this proposal being that if only a section of the children received food it would cast a stigma upon that section.

The Treatment of Glanders.

Representatives of the Glasgow corporation and the Lanarkshire county council recently interviewed the President of the Board of Agriculture on the subject of glanders among horses and the methods of preventing the disease. It was urged that a new order should be issued at once conferring additional powers on local authorities to deal with outbreaks. Glasgow and Lanarkshire, like the local authority of London, desire the compulsory application of the mallein test. Numerous experiments in Glasgow seem to have supported the views of those who have faith in the curative action of mallein. Another matter dwelt on was the desirability of fixing on the Imperial Exchequer the expense involved in the slaughter of animals not clinically affected. It was claimed by the deputation that the disease could be cured and that horses could be permitted to work during the period of reaction with the mallein test.

Juvenile Smoking.

The magistrates' committee of the Glasgow corporation has again been considering the question of juvenile smoking. The suggestion was discussed of making it an offence for a boy under the age of 16 years to be found using tobacco or having it in his possession for his own use. The school board has taken the initiative in issuing an appeal to householders to discourage energetically the evil practice of juvenile smoking.

Glasgow Dental Hospital.

The annual report shows that this hospital is fortunate in having a deficit of only £3 18*s.* 5*d.* The number of patients who attended the hospital during 1904 was 10,062, being 1756 more than in the previous year. The total number of operations was 9122, of which 2698 were extractions and 6424 preservative operations. In 338 operations anæsthetics were used. These figures bear ample testimony to the large amount of philanthropic work being done by the hospital among the suffering poor of the city. If, as is suggested, defective teeth are at the bottom of most of the dyspeptic ailments of the present day an institution such as this deserves every encouragement. We hear a good deal nowadays about preventive medicine but in this case we have a legitimate opening for preventive surgery.

Measles in Glasgow.

The medical officer of health reports that during last winter measles was very prevalent, especially in the eastern and southern districts of the city. Acting in coöperation with the school board on the principle that the closing of infants' sections should anticipate instead of follow the extension of the disease, action has been taken in a considerable number of instances during the winter and the results have been encouraging enough, although not spread over a sufficient time to show what the full value of the system may be as a method of stemming a rising tide of infection from measles.

Consumptive Sanatorium for Dumfriesshire.

A proposal was made some time ago to erect a sanatorium for the treatment of consumptives in Dumfriesshire. The movement has been going steadily forward and now it is announced that about £7000 have been collected in support of the scheme. It is proposed, to begin with, to make provision for 20 patients, leaving it to be afterwards discovered for how many more it is necessary to provide.

Fees for Attending Accidents.

Glasgow medical men are rebelling just now against what they consider the unfair treatment meted out to them in the case of street accidents. Where a policeman takes an injured person to a surgery an "ex gratia" payment is certainly made, but no recompense is made to the medical man in the many cases where the injured person is taken by a civilian and a policeman is afterwards called in. In all these cases, which are, of course, reported by the policeman to headquarters, no payment whatever is made and the medical man, in addition to the expenditure of time and labour, is put to the expense of the necessary surgical dressings. The Eastern Medical Society has taken the matter in hand and is pressing the claims of the medical men upon the attention of the "watching and lighting committee" which deals with such matters.

Lanarkshire Inebriates' Home.

Lanarkshire is in the unfortunate (or fortunate) position of having an inebriates' home and having no inebriates to put in it. The home at Hairmyres has only been in existence a few months and although it has no patients it seems, according to the convener of the committee, to have done good in a negative way already, as a number of those persons who had been often convicted have not been up during the last few months. One member of the committee suggested that in the meantime the building should be used as a consumptive home, but the general impression seems to be that unfortunately there will be no difficulty in getting inebriates to treat in the home.

Widal's Reaction.

The Clydebank and Renfrew joint hospital board has had before it a complaint by a local medical practitioner to the effect that a patient certified by him as suffering from enteric fever had been admitted to the hospital and discharged a few days later without any directions as to isolation and that after dismissal an examination of the blood gave a positive Widal reaction. The medical officer in charge of the hospital stated that he recognised the Widal reaction as a relative and not as an absolute test, and that he relied on the clinical diagnosis. If a patient could be cured with a dose of castor oil he would not detain him in hospital.

The Health of Aberdeen.

Dr. Matthew Hay, medical officer of health, reports that the death-rate from all causes during the month of April (17·72 per 1000 per annum) was considerably below the rate (19·26) for the preceding month and even still more below the rate (20·66) for the corresponding month of last year. Dr. Hay also reports that scarlet fever continued to decline, 12 cases with no deaths having been reported during the month, as against 16 cases with one death in the preceding month. Diphtheria greatly declined during the past two months, the number of cases notified in each month falling from 18 in February to eight in March and to two during the past month. There have been no deaths from this disease since January. Typhoid fever produced two cases during the month with one death. This is the first death from typhoid fever since last November and only the second death since April of last year. The epidemic of typhus fever, which gave cause for so much anxiety at the beginning of the year, appears now to be practically at an end. Except for one doubtful case removed for observation to hospital towards the end of the past month no case has been reported since April 11th. Six cases were notified in the early part of April but three of them were of cases which had been taken ill late in February or early in March but had not been sooner reported owing to the slight and somewhat doubtful character of the illness, the diagnosis having been rendered certain only by the occurrence of a subsequent undoubted case in each of the two families to which the cases belonged. The remaining three cases began in the last days of March, though not formally notified till the beginning of April, so that it may be said that the epidemic appears to have closed with the end of March. Four of the six cases notified were practically within one family and one case was that of a nurse at the City Hospital who had been nursing suspected cases. All of the cases have made a good recovery except one—a case of an old man whose daughter and grandchildren were suffering from typhus fever and who was believed to have had an attack of the same disease in early life. Erysipelas declined somewhat during the month, 17 cases having been notified as against 25 in the preceding month. There was one case of puerperal fever which terminated fatally. In the preceding month there was also one case, but up to that month there had been no case for four months. Measles declined greatly during the month, only 17 cases having been intimated or discovered, as against 55 in the preceding month. Three deaths were registered during the month, as against one in the preceding month. Whooping cough showed also a considerable decline during the month, 15 cases having been reported, as against 24 cases in the preceding month. One death was registered, as against four deaths in the preceding month. There were six deaths from influenza, as compared with 11 deaths in the preceding month.

May 23rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Physicians of Ireland.

AT a stated meeting of the President and Fellows of the Royal College of Physicians of Ireland held on May 5th Dr. A. Traill, Provost of Trinity College, Dublin, was unanimously elected an honorary Fellow of the College.

Public Health of Ireland.

From the returns of the Registrar-General, which were published on May 17th, it appears that the number of deaths in Dublin for the month is only slightly better than that of three other districts which are dealt with in the report. Galway is very high, with an average of 34 per 1000, and Sligo is not far behind with 31, while in 15 of the areas the rate is about 20.

Irish Medical Association.

Much dissatisfaction has been caused among members of the association and others by the publication styled the "Irish Medical Directory for 1905" in which the qualifications of members appear in full and in black print while those who elected not to join the association are partially ignored. To judge by the resolutions which have been passed in Belfast and elsewhere that publication will not have a long life. It seems impossible to account for the recent action of the Irish Medical Association except one believes in the old Latin aphorism—that those whom the gods wish to destroy are first sent mad. Dr. L. Kidd of Enniskillen, Dr. R Bodkin Mahon of Ballinrobe, and Dr. G. E. J. Greene of Ferns are all candidates for the direct representation of the medical men of Ireland on the General Medical Council in opposition to Sir William Thomson, who has been their representative for many years.—At a meeting of the North Down branch of the Irish Medical Association, held in the Medical Institute, Belfast, on May 18th, Sir W. Whitla was re-elected President for the ensuing year, and Mr. J. Wybrants Olpherts (Downpatrick) honorary secretary and treasurer.

Retirement of Dr. P. O'Keeffe of the Irish Prison Medical Service.

Dr. P. O'Keeffe has recently announced his retirement from the Irish Prison Medical Service after a career of 40 years. His resignation was signalised by an entertainment given to him by the chief officers of his department, including the chairman and other officials of the Prisons Board. Dr. O'Keeffe is well known in Dublin and Cork society and is highly esteemed. He has had many interesting criminals under his charge during those eventful years, ever since Dr. Kirwan, who was well known to the medical profession of Ireland in his time, was convicted of the murder of his wife on Ireland's Eye. Other and more modern criminals who have been under Dr. O'Keeffe's supervision would be more interesting to hear of now. It is hoped that at some time he will publish an account of his curious experiences.

The St. John Ambulance Association.

The annual inspection of the Belfast division of the St. John Ambulance Association was held in the large inclosure at the rear of the Central Fire Station, Belfast, on May 19th, and was in every way a success, Mr. J. C. Denham, assistant commissioner of the association, stating that the division represented by the fire brigade was one of the most efficient which he had examined this year. It was stated that last year the ambulance (worked by the fire brigade officials) was called into requisition 2393 times, and during the present year, that was, from the end of June, 1904, it had been in use on 2105 occasions.

May 23rd.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

Medical Superintendent Resigns after 29 Years' Service.

Dr. Charles O'Reilly, medical superintendent of the Toronto General Hospital, a position he has occupied since 1876, has resigned, his resignation to take effect on June 30th. When Dr. O'Reilly came from the hospital at Hamilton, Ontario, to take charge of what was ultimately to become the largest hospital of Canada, there were only 12 members on the acting and consulting staff, while to-day there is a staff of over 60. During the period of his superintendency 100,000 patients have been cared for in the wards, whilst in the maternity department some 4000 births have occurred. The hospital has gradually developed until to-day there is a constant floating population in the institution of some 500 people. Some years ago Dr. O'Reilly was instrumental in having established in the centre of the city an emergency hospital which annually attends to 2500 accidents and other emergency cases. Dr. O'Reilly will be entertained at a banquet by the profession of Toronto in the latter end of June. For a year or two he will travel abroad with his family.

Ontario Board of Health.

During the latter part of the month of April the regular quarterly meeting of the Ontario Board of Health was held in Toronto when the secretary, Dr. C. A. Hodgetts, presented the quarterly report of his department. He referred to the fearful mortality still prevailing throughout the province from tuberculosis, which had amounted to 500 lives for the first quarter of 1905, and urged the establishment of dispensaries for the treatment of cases of tuberculosis until such time as sanatoriums could be erected to take care of these cases. Dr. Hodgetts also took up the subject of the disinfection of Pullman and sleeping cars, which at the present time is not carried out in Ontario, and urged the board to recommend that legislation should be enacted in this direction. Notice of motion was given that at the next regular

meeting of the board a discussion would take place upon the advisability of recommending the Government to establish a separate department of public health. The question of curtailing infant mortality was also considered and steps will be taken to lessen this through the coming summer months.

Professor W. Osler's Successor a Canadian Graduate.

Dr. Lewellys Franklin Barker, who has been appointed Professor of Medicine along with Dr. W. S. Thayer to succeed to the duties lately relinquished at Johns Hopkins University by Professor Osler, is a graduate of the University of Toronto of 1890. Dr. Barker was born near Philadelphia but early in his life his parents moved to Ontario, and Dr. Barker has received all his preliminary education in Canada. After graduation he entered the Toronto General Hospital for a year as house surgeon, going to Baltimore in 1892. In 1900 he was appointed to the chair of anatomy in the University of Chicago.

Ontario Hospitals Association.

The annual meeting of the Ontario Hospitals Association was held in Toronto on April 12th, the principal item of business being the formation of a special deputation to wait on the members of the provincial government asking for an increased grant to the hospitals of the province, to raise it from 50 cents per patient to 75 cents per patient. At the present time the Ontario Government gives annually to the hospitals of the province $110,000. The Premier has promised consideration of the subject. The statistics show that in the Ontario hospitals 39,223 patients were treated in 1904, as against 35,912 in 1903. The total revenue for these hospitals in that year amounted to $844,881, including the Government grant of $110,000. When divided this actually averaged 17 cents per day for each patient entitled to receive it, while the actual average cost of each patient was 89 cents per day. Mr. Edward Gurney of Toronto was elected President, Dr. Charles O'Reilly Vice-President, and Dr. John Ferguson, Toronto, secretary-treasurer.

British Columbia's Statistics for 1904.

The thirty-second annual report of the provincial registrar of British Columbia of the births, marriages, and deaths in that province in 1904 shows the registrations under the three headings to be as follows: births, 2139; marriages, 1252; and deaths, 1734. The figures for 1903 were: births, 2093; marriages, 1160; and deaths, 1572. Of the 2139 births in 1904 1121 were boys and 1018 were girls. Victoria and Vancouver, the two chief cities, contributed over one-half of the births, the figures for each being 471 and 593 respectively. The death-rate continues low. Under three years the deaths numbered 416; from 3 to 10, 69; from 11 to 21, 98; from 22 to 40, 484; from 41 to 60, 341; from 61 to 70, 169; from 71 to 80, 98; from 81 to 90, 45; and over 90, 3. Pneumonia claimed the greatest number of victims from any one disease, the number being 104. From tuberculosis the number was 79.

The Newfoundland and Labrador Medical Mission.

Dr. Wilfrid Grenfel, the English medical missionary who for the past 13 years has been devoting his life to the amelioration of the ills of the fisherfolk of Labrador and the north-west coast of Newfoundland, has been making his annual visit to New York, Toronto, and Montreal in the interests of his mission. Dr. Grenfel has been instrumental in establishing three hospitals amongst these people, and by the generosity of Lord Strathcona he has a hospital ship which during summer time he sails up and down the coast administering to the needs of the sick. In winter his dog team and sled carry him often 100 miles to a patient, and patients have been brought to him that distance on dog sleds. This summer Dr. Grenfel has secured the services of two young specialists of Boston to accompany him.

Toronto Clinical Society.

The last regular meeting of this society was held on the evening of May 3rd when the following officers were elected: President, Dr. Adam H. Wright; Vice-President, Dr. H. B. Anderson; recording secretary, Dr. George Elliott; corresponding secretary, Dr. W. J. McCollum; treasurer, Dr. Geoffrey Boyd; and executive committee, Mr. E. E. King, Dr. W. B. Thistle, Dr. R. J. Dwyer, Dr. D. J. Gibb Wishart, and Dr. H. J. Hamilton. The annual banquet was held on May 6th, when a most enjoyable evening was spent, most of the fellows and members being present.

News Items.

The Manitoba Medical College, Winnipeg, will erect a new medical building at a cost of $50,000.—The General Hospital, Montreal, is erecting a new administration building and two new wings at a cost of $200,000.—Dr. Francis Wayland Campbell, Montreal, Dean of the Medical Faculty of Bishop's College University, has died at the age of 58 years.—The Medical Faculties of Bishop's and McGill Universities, Montreal, are to amalgamate.

May 16th.

NEW YORK.

(FROM OUR OWN CORRESPONDENTS.)

Professor W. Osler's Retirement.

IN the end of April Professor Osler gave a farewell address at the annual meeting of the Maryland Medical Society at Baltimore on the subject of Unity, Peace, and Concord and this was followed by a banquet at which he was the principal guest and several excellent speeches were made. There have been several minor leavetakings at professional societies and a portrait is in process of being painted, but the chief compliment paid to him by his medical brethren occurred on May 2nd in a monster banquet at the Waldorf-Astoria Hotel, when some 600 physicians, surgeons, and gynæcologists assembled from all parts of the United States and Canada. The large hall was filled, the Stars and Stripes and Union Jack were mingled, and the two tiers of galleries were crowded with ladies. Dr. Tyson (Philadelphia) acted as chairman, or, as it is called here, toastmaster, and on Professor Osler's left was Dr. Keen, the Philadelphia surgeon. Other seats at the high table were occupied by Dr. Gibson, Dr. Dickinson, Dr. St. John Roosa, Dr. Malloch, Dr. Delafield (New York), Dr. Wilson (Philadelphia), Dr. Frank Billings (Chicago), Dr. Frederick Shattuck (Boston), Dr. Musser (Philadelphia), Dr. Shepherd (Montreal), Dr. Chadwick (Boston), Dr. S. Weir Mitchell (Philadelphia), Dr. F. M. Sandwith (London), Dr. John S. Billings (New York), Dr. Jacobi (New York), Dr. Welch (Baltimore), Dr. Polk, and Dr. Janeway (New York). Dr. Shepherd spoke of Professor Osler's able work in Canada from 1870 to 1884 and was followed by Dr. Wilson who spoke on Professor Osler in Philadelphia as teacher and clinician, and by Dr. Welch who spoke on Professor Osler in Baltimore as teacher and consultant. Then followed Dr. Jacobi who humorously praised him as an author and physician and then Dr. Weir Mitchell, after a most graceful speech, presented to the guest a beautifully bound copy of Cicero's "De Senectute," translated by James Logan and printed by Benjamin Franklin, both of Philadelphia. Professor Osler, in a most feeling speech, thanked all present for the overwhelming regard and friendship shown to him by his many professional friends. "I have had but two ambitions in the profession," he said, "first to become a good clinical physician and, second, to built up a great clinic at the Johns Hopkins University on Teutonic lines." During the evening some former pupils sang to the tune of the British National Anthem some impromptu verses, of which this is one:—

"Look at his arteries,
Judge of his age by these,
Scarce thirty-five.
May he ne'er pass his prime,
In symptom or in sign,
Younger in spite of time;
Long live our chief.

Chorus—God save the mighty chief,
We part from him in grief;
God save our chief."

The evening was a very eventful one and all agreed that no other member of the medical profession in America could have had such a farewell.

Yellow Fever in Panama.

Colonel Gorgas, chief sanitary officer of the American Isthmian Canal Commission, has recommended that no more employés be sent to the isthmus until suitable quarters can be provided for them. On May 8th Mr. R. R. West, auditor of the Panama Canal Commission, died from yellow fever in Panama.

Meningitis in New York.

There has been an increase in the number of deaths from cerebro-spinal meningitis in the week ending May 6th compared with the preceding week. The weekly death report of the department of health states that for the week ending May 6th there were 110 deaths from the disease in the city of New York, against 87 in the preceding week. In the two previous weeks there were 104

deaths and 117 deaths from this cause respectively. The Marine Hospital Service of the United States is for the first time keeping a separate record of deaths from cerebro-spinal meningitis. The reports of this service up to the present time, which are probably far from complete, give the number of deaths from the malady in the United States since July 1st, 1904, as 2856. The entire number of deaths from this cause in the State and city of New York is given as 2315. In New Jersey the deaths from the disease numbered 170 and in Massachusetts 74 cases proved fatal. As illustrating the deadliness of cerebro-spinal meningitis it is stated that of 231 cases of the disease reported to the Marine Hospital Service 167 proved fatal.

May 15th.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Continued Excessively High Rate of Mortality from Plague throughout India.

THE plague epidemic continues with unabated virulence. For the week ending April 22nd 54,602 deaths were recorded, as compared with 51,786 for the preceding seven days. The death-roll for 1905 promises to exceed all former records. In 1901 the total deaths from plague were returned at 273,679, in 1902 the number rose to 577,427, in 1903 it reached 851,263, and in 1904 it was 1,022,299. From Jan. 1st of the present year up to April 15th the number of fatal cases is reported at 576,366 and it is very doubtful whether these figures tell the whole truth. Of the total of 64,214 seizures with 54,602 deaths during the week ending April 22nd the Bombay Presidency had 3497 cases and 2787 deaths; Madras, 65 cases and 65 deaths; Bengal, 4993 cases and 4351 deaths; the United Provinces, 18,249 cases and 16,637 deaths; the Punjab, 33,162 cases and 27,362 deaths; Burma, 183 cases and 175 deaths; the Central Provinces, 223 cases and 175 deaths; Mysore State, 50 cases and 40 deaths; Hyderabad State, 401 cases and 316 deaths; Central India, 117 cases and 84 deaths; Rajputana, 2924 cases and 2406 deaths; and Kashmir, 359 cases with 215 deaths. These detailed figures will show how the disease has extended over the country and the heavy mortality of the cases. The mortality is higher this week in the Punjab by 3420; in the United Provinces by 753; in Rajputana by 200; in Burma by 20; in Kashmir by 28; in Bombay city by 132; and in Calcutta by 130. The only noticeable decrease is in the districts of Bengal, where the epidemic seems to be abating. In this area, however, the outbreak occurred earlier in the season. During the present outbreak the anti-plague serum from the Pasteur Institute in Paris has been somewhat extensively used for the treatment of cases both in Bombay and Calcutta and although it is early to form a definite opinion numerous individual reports would seem to show its value.

The Encouragement of Inoculation against Plague.

A somewhat novel proposal was made to the Government of Bombay that it should pay to the family of anyone who died from plague within one year after inoculation the sum of 100 rupees. This suggestion was not accepted by the Government of Bombay, which, moreover, in answer hardly expressed itself with enthusiasm for inoculation, although nominally giving the process its support. It is very evident that until Government shows its own faith in inoculation, and not only expresses it freely but offers some tangible inducement to the people, the benefits of this prophylactic are not likely to be taken advantage of by the masses. Another proposal has been put to the insurance companies—viz., that they should offer some form of assurance against death from plague and at the same time encourage inoculation by giving favourable terms to those who have been protected. The insurance companies might go even further and, following the principle of the sanatoriums for consumptives maintained in Germany by the insurance companies there, offer to give medical treatment to their inoculated clients attacked with plague. The risk of death from plague, even after inoculation, could be still further reduced by the use of anti-plague serum.

May 4th.

Obituary.

PROFESSOR EZIO SCIAMANNA.

PSYCHOLOGICAL research in the experimental laboratory and the clinical ward loses an accomplished and indefatigable votary in Dr. Ezio Sciamanna who died suddenly in Rome on May 15th. He had taken an effective part in the proceedings of the International Congress of Psychology recently held there and at its close complained of recurrent lancinating pains over the region of the heart. An attack of bronchial catarrh from which he had partially recovered but which was still active enough to induce frequent fits of coughing seemed to aggravate, if not to provoke, the cardiac symptoms and it was on the occasion of one of these said fits that early on the morning of the 15th he experienced a sudden sensation as if of impending asphyxia. Professional aid was at once in attendance but without avail and after a few convulsive seizures, accompanied by apnœa very painful to witness, he passed away.

A Roman by birth, having been born in the suburbicarian diocese of Albano in 1850, Ezio Sciamanna was educated at the metropolitan University and proceeded in due course from the faculty of arts to that of medicine in which he graduated with distinction in 1876. Having chosen medico-psychology as his special walk he made a series of visits to the great schools of the Continent and the British Isles, spending most of his time at those of Paris and London, in the former of which he gave much attention to the courses of Charcot and Magnan. Thanks to these he returned to Italy with unusually sound and varied equipment in psychological medicine and in 1881 was appointed "Liberodocente" in neuro-pathology in the Roman University. Four years thereafter he was promoted to the chair of Clinical Psychiatry in the same school and in conjunction with his colleague, Dr. Giuseppe Sergi of the Institute of Experimental Psychology and Anthropology, he founded the *Rivista di Psichiatria e Neuropatologia* which soon achieved an authoritative place among its sister periodicals and which still enriches its special subject matter with the same staff of contributors under its new name and form of the *Annali della Clinica Psichiatrica*. Sciamanna's contributions to both journals are over 100—hardly one of them without distinct merit for independent observation and research and for a truly "Latin" lucidity and charm of style. He was the first of his professional compatriots to prosecute experiments on the "electric excitability of the cerebrum humanum," while his communications on "cerebral tumours," on "constructional psychoses," on "psychic tic," and cognate lesions or maladies have found honourable mention in more than one treatise—Italian and English, French and Austrian, German, Dutch, and Danish. At the recent International Congress he read a paper on the thesis that the psychical functions are not the special outcome of one part of the encephalon only but that they energise in necessary relation with the "attività complessiva dell' intero encefalo" (the combined action of the encephalon as a whole). He strengthened his position with observations on apes and vindicated them in the discussion which followed with a dialectic skill and a cogency which made his contribution one of the most memorable of the congress. Apart from his work in medico-psychology Sciamanna was a strenuous antagonist of obscurantism in all its forms, and though an ardent and uncompromising combatant never failed in the courtesy due to sincere, if mistaken, controversialists. These truly chivalresque qualities endeared him to colleagues and pupils alike, while his "sense of citizenship," all too rare in Italian public life, roused him on occasion to intervene in the municipal and even the political arena, when interests cherished by all enlightened sons of Italy and of Rome appealed for vindication or support. He was a "Consigliere della Congregazione di Carità"—a post in which he showed that true benevolence which is all the more appreciated that it is circumspect and discriminating. He was buried on May 17th in the family

vault at the Campo Verano in the presence of numerous colleagues, pupils, past and present, and prominent citizens.

GEOFFREY RICHARD SLADE, M.A., M.D. CANTAB., M.R.C.P. LOND.

AFTER a short illness Dr. G. R. Slade died at the London Hospital on May 16th in his thirty-third year, having been on duty at the Pathological Institute of the hospital within a week of his death. He was educated at Charterhouse and Trinity College, Cambridge, where he had a distinguished career as a classical scholar. After obtaining first-class honours in 1893 he selected medicine for his future profession and entered the London Hospital as a third-year student in 1896. He qualified in 1900 and held the usual resident appointments. Three years ago he became associated with the Pathological Institute, of which he was director at the time of his death. In this capacity he did much good work, a specimen of the results of which appeared a few weeks ago in THE LANCET. Professionally he was a most conscientious worker with a true love of science and a great knowledge of medicine and pathology which he was able to impart in a lucid and convincing style.

As a colleague the truthfulness and straightforwardness of his character commanded the deepest respect and his faultless unselfishness inspired everyone with the sincerest admiration and devotion. As an individual his manifold virtues endeared him to all. He was the recipient of many confidences and his large stores of wisdom and sympathy were in constant request. So passes from among us one of the most promising of the rising generation of physicians. Proficient not only in medicine but also in letters and philosophic thought, he was the embodiment of a type of which the profession, as well as his fellow workers and friends, might well be proud. He died from septicæmia contracted in the performance of his work, and by his death another name is added to the long roll of martyrs in the cause of medical science. To those who mourn him we offer our sincere sympathy.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Eugène Hubert, professor of midwifery in the University of Louvain, at the age of 66 years.—Dr. Yérofèieff, formerly professor of ophthalmology in the University of Tomsk.—Dr. Conrad Eckhard, professor of physiology in the University of Giessen, at the age of 83 years. He published many valuable works on anatomical and physiological subjects.—Dr. Samuel von Basch, extraordinary professor of experimental pathology in Vienna. His published works cover a wide range and include very interesting accounts of the reign of the ill-fated Emperor Maximilian whom he accompanied to Mexico. His name is also well known in connexion with a sphygmomanometer which he devised.

WATER-SUPPLY OF WOOLACOMBE.—At the meeting of the Ilfracombe (Devon) district council held on May 17th it was stated that the inhabitants of the little watering-place of Woolacombe had decided on taking the water-supply from the Ilfracombe district council.

MIDLAND MEDICAL UNION: CHESTERFIELD BRANCH.—The annual dinner of this association was held on May 11th at the Portland Hotel. Dr. G. Godfrey Macdonald, the President of the Union, occupied the chair, and Dr. J. G. Shea (in the unavoidable absence of Mr. R. G. Allen, the Vice-President) was in the vice chair. Amongst those present were Dr. George Booth, Dr. W. Dyson, Mr. R. J. Pre-Smith, Mr. J. F. Cheesewright, Dr. S. Worthington, Dr. J. W. Martin, Dr. H. J. Rankin, Dr. Arthur J. Hall, and many others, together with Mr. G. S. O'Rorke, LL.D. (general secretary). The toast of "The Midland Medical Union" was proposed by Mr. Cheesewright and responded to by the President. The toast of "The Guests" was proposed by Dr. Booth, the ex-President, and responded to by Dr. Martin and Mr. W. H. Rowthorne. An informal discussion took place on matters relating to the objects of the union and interchange of experience in attaining fair and reasonable remuneration for medical contract services by unity of action in particular districts.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

TUESDAY, MAY 23RD.

THE eighty-first session of the General Council of Medical Education and Registration was commenced to-day at the offices, 299, Oxford-street, London, W., Dr. DONALD MACALISTER, the President, being in the chair.

New Members.

Sir Thomas Myles, appointed by the Royal College of Surgeons in Ireland as a member of the Council in room of Sir Charles Ball, was introduced by Sir William Thomson and took his seat. Dr. Arthur Atock, appointed by the Apothecaries' Hall of Ireland as a member of the Council to succeed the late Mr. C. R. C. Tichborne, was introduced by Dr. Little and took his seat.

The President's Address.

[The PRESIDENT commenced his address by referring to the losses sustained by the Council through the deaths and resignations of members and officials. He continued:—]

I would now allude briefly to certain matters which have occupied my attention during the recess. In accordance with your resolution of Nov. 29th I addressed a communication to the Lord President of the Privy Council on the subject of medical and dental companies and of the abuses to which they give rise. The Lord President, in reply, asked for detailed evidence in support of our representations. This evidence the Registrar, with the help of members of the Companies Bill Committee, was enabled to collect and to forward. It is now under the Lord President's consideration. It will be remembered that, according to the judgment of Chief Baron Palles, a dental company whose proposed title is such as to mislead the public into supposing that its business is carried on by qualified persons may lawfully be refused registration under the Joint Stock Companies Acts. The question arose whether a company already registered, whose title was open to the same objection, might lawfully remain upon the register. A judgment in the negative has now been given in the High Court of Justice in Ireland by the Master of the Rolls in the case of the Attorney-General *versus* Appleton and others. This important decision was made the subject of questions in Parliament by Sir John Tuke who has been most active in pressing the matter on the attention of the Government; and I communicated a full report of the case, courteously furnished by the British Dental Association, to the Lord President. The purpose of these questions and communications was to ascertain what steps could be taken to procure a similar declaration of the law in Great Britain. The replies will be laid before you. The last of them, received on Saturday, is of primary importance to the dental profession, but the underlying principle admits of a much wider application. The documents indicate that definite advance is being made in the direction desired by the Council in its resolution of May 31st, 1904, and you will doubtless refer them to the Companies Bill Committee for its information. As the result of a confidential communication from the Army Council this Council on Nov. 22nd, 1904, appointed a committee to inquire into the operation of the Anatomy Acts and their effect on the teaching of anatomy and practical surgery in Great Britain. A further communication from the War Office was received in March, from which it is apparent that the inquiry you directed is of pressing importance. To facilitate the work of the committee I have opened communications with a number of the authorities concerned, and the information thereby obtained, much of which is of a confidential character, will require careful consideration. The Office Site Committee, with the valuable aid of your solicitor, has been occupied in arranging for the future tenancy of the Council's house in Hanover-square, the existing lease of which expires at Midsummer next. The negotiations have been protracted and sometimes difficult but I may be allowed to anticipate the report of the committee so far as to say that we have now found a satisfactory tenant at a rent considerably larger than that hitherto obtained and on conditions which the Council has already approved in advance.

The Council will also learn with satisfaction that the accounts for the year 1904 are more favourable than those for any year since 1895. At the end of 1903 our deficit was some £2165; at the end of 1904 it was only £218, or about one-tenth as great. The Finance Committee will report on the items which have contributed to this substantial improvement, but it is noteworthy that the result is attributable not to any increase of ordinary income but to greater economy of expenditure. Whether this degree of economy can be maintained in future years without impairing the Council's efficiency it is difficult to forecast. But though I may be, as I have been, charged with incurable optimism regarding the Council's finances I still think that in ordinary years equilibrium between income and expenditure is possible of attainment, even without the aid of fresh legislation, and I am strengthened in this belief by the opinion of the Finance Committee. If the vigilance of your officers is supported by the resolve of the Council to discountenance all expenditure of time and money that does not directly conduce to efficiency it is not extravagant to hope that the accounts of the coming years may be even more satisfactory than the last. The closing year of office of my distinguished predecessor in the chair has shown us what can be done in this direction and it will be my ambition to assist to the best of my power in maintaining the ground we have gained under his leadership. But while we strive after economy on the one hand we must not neglect any legitimate means for the improvement of our income on the other. Where the equilibrium is precarious even a small addition to the right side of the balance is important. Dr. Mackay's suggestion—that the fees for the restoration of lapsed names to the registers and for the registration of higher titles should be slightly raised—has proved to be fruitful, for it has added over £400 to the receipts of the year. The higher fee, so far as it represents a fine for negligence, will incidentally tend to keep the registers more correct. The fee for recording additional qualifications, being, as it were, a small tax on new dignities, is paid with comparative complacency by the newly dignified. Dr. Mackay's proposal is thus abundantly justified and the Chancellor of the Exchequer in search of fresh sources of revenue might well take counsel with him.

The suggestion has been made from an important quarter that one of the services gratuitously performed by the Council might be made self supporting in a similar way. I refer to the maintenance of our Students' Registers. The General Registrar, with the help of the branch registrars, has ascertained that the ordinary expenditure on this branch of our work—for printing, postage, salaries, and time occupied in committees and councils over its details—may be estimated at about £400 a year. Against this outlay the only receipts are some £20 a year from fees for late or exceptional registration. If a fee, say, of 5*s.* were charged for the certificate of registration in ordinary as well as exceptional cases the actual cost would just be covered and the Council's funds would be relieved to a corresponding extent. It is represented that for such a step no new legislation would be required, that the Students' Registers might remain on their present "voluntary" basis, that the trifling fee would be readily paid and easily collected, and that the future action of the Council and of the licensing bodies in regard to students' registration would in no wise be prejudiced. If these representations are just, and I offer them for your mature consideration, the Council might be well advised to make the experiment. The improvements in the office sanctioned at the last meeting have been carried out under the supervision of the General Registrar and, thanks to his care and forethought, the cost has come well within the estimate. The equipment required for the better keeping of the registers and of the documents relating to registration has now been provided and the new system, already tried and approved in the dental department, is being rapidly applied to the others. The expense in this case will certainly contribute to efficiency. The like statement may also be made regarding the outlay on cleaning and redecorating the Council chamber. This work had been postponed until it was certain that our occupancy of the premises would continue. When the doubt was finally removed the Registrar was instructed to put the chamber and galleries into tenantable condition. The work of the Council will go forward with greater zest when it is carried on in brighter surroundings and in purer air.

[The President then announced that the reports of the supplementary inspections of the Universities of Oxford and London would be brought before the Council by the Examination Committee. In his opinion they were highly satisfactory. After referring to the Pharmacopœia Committee the President announced that the penal cases would be heard on Wednesday and Thursday and concluded his address by assuring the chairmen of committees and other members of the Council of his willingness to assist them in every possible manner.]

On the motion of Dr. WINDLE the President was thanked for his address, which was ordered to be printed in the minutes.

The Business Committee.

Dr. NORMAN MOORE moved that the following members should compose the Business Committee: The President, Dr. Windle, Dr. Bruce, Sir Christopher Nixon, and Mr. Young.

Sir JOHN MOORE seconded the motion, which was agreed to.

Yearly Examination Tables.

On the motion of Dr. WINDLE, seconded by Dr. NORMAN MOORE, the following yearly tables for 1904 were received and entered on the minutes:—

(*a*) I. and II. Tables showing results of professional medical examinations during 1904; (*b*) table showing results of professional examinations for qualifications in sanitary science, public health, or State medicine during 1904; (*c*) table showing results of professional dental examinations during 1904; (*d*) table showing results of preliminary examinations during 1904; (*e*) answers sent by the medical authorities as to the exemptions granted by them in any part of their examinations during the year 1904; (*f*) table showing results of competition held on Nov. 14th, 1904, for commissions in the medical staff of the Royal Navy; (*g*) table showing results of competition held in January, 1905, for commissions in the Army Medical Service; and (*h*) and (*i*) tables showing results of competition held in August, 1904, and January, 1905, for commissions in the Indian Medical Service.

Vote of Thanks.

Sir PATRICK HERON WATSON moved:—

That the thanks of the Council be conveyed to the Director-General of the Medical Department of the Royal Navy, the Director-General of the Army Medical Service, and the Under Secretary of State for India respectively for the returns which they have again furnished to the Council with the request that these returns may in future continue to be furnished to the General Medical Council.

Dr. MCVAIL seconded the motion which was agreed to.

Restoration of Name.

The Council having sat *in camerâ*,

The PRESIDENT intimated that the Council had resolved to direct the Registrar to restore to the Medical Register the name of Samuel B. Shekleton.

Amendment of the Companies Acts.

The PRESIDENT said he had now to lay before the Council a statement of the steps taken since November, 1904, in regard to the suggested amendment of the Companies Acts by himself and also by Sir John Batty Tuke, to whom they owed a great deal for having pressed these matters on the attention of the Government. The latest expression of opinion by the Privy Council was contained in the following letter:—

Privy Council Office, May 19th, 1905.

SIR,—Referring to your letter of 17th inst. on the subject of the registration of medical and dental companies and inquiring whether, in view of the decision of the Master of the Rolls in Ireland in the case of the Attorney-General for Ireland *v.* Appleton and others, the Attorney-General for England would take similar proceedings in the courts here at the instance of a proper relator, I am directed by the Lords of the Council to state for the information of the General Medical Council that it appears to their Lordships that if a case of a like nature to that above cited arose in this country it would be open to the English branch of the British Dental Association to move in the matter, as apparently the branch in Ireland has done.

I am, &c.,

The Registrar, &c. (Signed) A. W. FITZ ROY.

The process should be that through the Attorney-General who must consent to act an injunction should be asked for to prevent a company already registered with a title which had been misleading from remaining on the register of joint-stock companies. If one good case were brought up and the decision were the same as that given in Ireland that would mean that a number of companies with misleading titles in connexion with medical and dental practice might be removed from the privileges of registered joint-stock companies. The suggestion was made that the British Dental Association should take up the matter. They were in a position, no doubt, to inquire into the circumstances of a clear case and present it in a proper form and in proper course. He moved that the documents in connexion with the matter be placed before the Companies Bill Committee to be considered.

Mr. TOMES, in seconding the motion, said that the Council was deeply indebted to the President for bringing about this result.

The motion was agreed to.

It was agreed to enter the report in the minutes of the day.

Request for Change of Designation.

The Council considered the report of the Executive Committee in regard to the petition from 767 Licentiates of the Apothecaries' Society of London requesting an alteration in the Medical Register of the designation therein given to the qualification granted by the Society.

The report was ordered to be entered on the minutes.

The PRESIDENT said the prayer of the petition was as follows:—

> Your petitioners therefore humbly pray that the General Council will forthwith order that, in respect of all persons who have passed or shall pass the qualifying examination of the Society conducted in manner prescribed by the Medical Act, 1886, and have received or shall receive the diploma of the Society, the qualification entered or to be entered in the Medical Register shall be changed from "Licentiate of the Society of Apothecaries" to "Licentiate in Medicine, Surgery, and Midwifery of the Society of Apothecaries," or such abbreviation thereof or other title as shall indicate that the persons holding the said qualification are legally qualified to practise in medicine, surgery, and midwifery.

He would direct the attention of the Council to the Medical Act of 1858 which governed this matter. It described the qualifications that were to be registered. After consideration of all those points the committee had no option but to come to the conclusion that without a change on the schedule of the Acts, which would require fresh legislation, the Registrar would not be justified in changing the designation of the Licentiates of the Society of Apothecaries.

Sir HUGH BEEVOR supported the recommendation of the Executive Committee.

Dr. WINDLE moved the approval of the report which was seconded by Dr. NORMAN MOORE.

Sir THOMAS MYLES said that apparently the Council had no power to alter the title, but he would like to know whether they might not suggest to those gentlemen how they were to get the alteration which they desired.

Dr. ATOCK agreed with the suggestion of Sir Thomas Myles.

Mr. BROWN hoped that the Council would do more than simply acknowledge the petition.

Sir CHRISTOPHER NIXON submitted that the application for the change which the Licentiates desired should come from the body itself. They had no right to interfere with the status or title of a body simply on the application of the Licentiates. If the body made an application to the Council the Council would point out that they would have to obtain an Act of Parliament for the privilege they wanted and that the Council would be prepared to assist in obtaining that. He thought that the Society of Apothecaries had an extremely strong case.

Dr. NORMAN MOORE said that he took an entirely different view. There had been prevalent in their profession an unfortunate desire, which he thought ought to be discouraged, to claim titles which had not been earned. They constantly heard that people who passed a certain examination were quite as good as those who had studied at the University and who had the degree of doctor. This was a degrading tendency, against which the Council should set its face. The Society of Apothecaries of London had an honourable history and if he were a Licentiate he should be proud of the title and not anxious to assume another.

The PRESIDENT said that there was no intention on the part of the committee to send a curt reply to the petitioners. The petitioners asked a definite thing and it was wise on the part of the Council to confine itself to a definite answer. The petitioners did not ask the Council to help them to obtain fresh legislation or to promote a Bill in Parliament. The finding of the committee was a precise answer to a well formulated and clear question. The Council placed on the certificate of registration the statement that the qualification was a complete qualification for medicine, surgery, and midwifery, and on the first page of the Register there was a statement to the same effect. Mr. Muir Mackenzie advised the committee that that was the utmost extent to which their legal powers enabled them to go. It showed that the Council was anxious to make it clear to the public that those gentlemen were fully qualified.

The motion was agreed to and the report approved.

Investigations by Medical Unions.

The Council next considered the petition from the County of Durham Medical Union requesting that when cases have been investigated by their society or any similar one the General Medical Council should accept the conclusions arrived at and take action accordingly. In reference to this petition the Executive Committee recommended that a reply should be sent pointing out that in all proceedings before the Council the rules of evidence in judicial proceedings in courts of law must as far as possible be followed and that accordingly the suggestion of the petitioners was one that the Council was unable to adopt.

The report was received and entered on the minutes.

The PRESIDENT pointed out that the legal advisers of the Council had again and again insisted that the rules for evidence in judicial proceedings in courts of law must so far as was practicable be followed.

Dr. WINDLE moved approval of the recommendation of the Executive Committee.

This was seconded by Mr. JACKSON and agreed to.

Invalid Medical Certificates.

The Council took up a communication from the British Medical Association which was referred to the General Medical Council by the Executive Committee for its information.

On May 24th, 1904, a communication was read to the Executive Committee from the Medico-Political Committee of the British Medical Association forwarding a communication from the education committee of the borough of Bootle in regard to the giving of a medical certificate by a person described as a local chemist and druggist in the case of a girl unable to attend school, whereupon the following resolution was passed: That the attention of the Medico-Political Committee of the British Medical Association be called to Section 37 of the Medical Act, 1858; that they be informed that on the face of it the certificate forwarded to the Council appears to be invalid under that section and that the Council has no jurisdiction over chemists who give invalid certificates.

On Nov. 21st, 1904, a further communication on the subject was considered by the committee and the whole correspondence was remitted to the General Council, by whom it was considered on Nov. 24th and 25th, 1904, on the latter of which dates Mr. Muir Mackenzie gave an opinion to the effect that:—

> Although Section 37 of the Medical Act, 1858, imposes a statutory duty on public bodies not to accept in specified cases certificates given by unregistered persons, there is no statutory penalty against either a public body for accepting or an individual for giving invalid certificates, but if the public body acted so systematically in this way as to create a public mischief the Attorney-General might intervene to prevent the provisions of the Act from being contravened. If a public body is not required by statute to receive certificates signed only by medical practitioners, it can accept certificates if it chooses from chemists or unregistered persons.

A further communication had been received from the British Medical Association. The medical secretary, referring in this letter to statements made by members of the General Medical Council, said statements appeared to have been made that the "certificate" was written on a chemist's memorandum form and that it purported to be signed by a chemist and druggist.

The letter proceeded:—

> I enclose the certificate and am instructed to point out that it is given on a printed form issued by the local education authority and headed "Form of Medical Certificate," and the document contains no indication that the person who signed it was not a registered medical practitioner.
>
> It will also be observed that this is not a case, as was suggested in the debate in the General Medical Council, in which a local education authority knowingly accepted certificates of unfitness to attend school from others than registered medical practitioners, but, on the contrary, the local education authority, on finding out that the signatory was not a medical practitioner, did not accept the certificate but brought it to the notice of the British Medical Association.
>
> It appears to the Medico-Political Committee that the exact form of this certificate is a matter of public importance as affecting the question whether the law at present makes adequate provision against imposition upon the public by the signing, by persons other than registered medical practitioners, of documents which purport to be medical certificates. I am, therefore, instructed to request that you will be so kind as to bring this letter before the Council in order that the form of the certificate in question may be made known to the Council and may be reported in its public proceedings, thus correcting misapprehensions to which the report of the debate in November last is found to have given rise.

BOOTLE EDUCATION COMMITTEE.

FORM OF MEDICAL CERTIFICATE
(for Educational purposes).

Bootle: *13th Feb., 190.*

I hereby certify that *Elizabeth Hickey, of 81, Seaforth St.*, is suffering from *Impetigo on back of head*, and is not fit to attend school, but will probably be able to return in *Two* { weeks. months.

P. Williams,
123, Derby Road.

Sir VICTOR HORSLEY moved that the communication be received and entered on the minutes.

The PRESIDENT, in seconding the motion, said he was afraid he was responsible for some of the misapprehension that had existed in the debate. He was glad the certificate in question had been produced.

The motion was agreed to.

Mr. BROWN suggested that some action should be taken.

The PRESIDENT said that if Mr. Brown wrote out a motion indicating the action he wished to take they would then discuss it.

Dental Business.

The Executive Committee presented the following report on the dental business transacted since the last meeting of the Council:—

(1) The prescribed conditions having been duly fulfilled in each case, the names of the under-mentioned persons have been restored to the Dentists' Register, from which they had been erased in conformity with the provisions of Section 12 of the Dentists Act, 1878: Charles Griffith, William Quantrell, Henry Schofield, and Alfred H. Thomas.

(2) Copies of the following Colonial Acts relating to the practice of dentistry were received from the Colonial Office and referred by the Executive Committee to the Dental Education and Examination Committee for its information: "The Dentists Act, 1904," of New Zealand; "The Dentists Act Amendment Act, 1904," of South Australia.

(3) The President reported as to the action that had been taken by him since the last session of the General Council in regard to the subject of the registration of medical and dental companies and called attention to a recent judgment in the Irish courts, directing the removal of a dental company from the list of registered companies.

Sir John Batty Tuke read correspondence which had passed between himself and various Government departments and the chairman of a departmental committee of the Board of Trade on the operation of the Companies Acts.

It was resolved: That these additional documents be referred to the Companies Bill Committee of the Council for its information.

(4) The committee considered a communication from the Incorporated Society of Extractors and Adaptors of Teeth, Limited, forwarded under the impression that the Council was, in conjunction with the British Medical and Dental Associations, promoting a Bill for the amendment of the Medical Acts, requesting that a deputation might be received by the Medical Council to discuss the terms upon which provision should be made in any future legislation to be obtained, if possible, in coöperation with the Medical Council—to secure to the members of their society the right to continue their present calling, and approved the answer to this communication which had been sent by the Registrar by direction of the President.

On the motion of Dr. WINDLE, seconded by Dr. NORMAN MOORE, the report was received and entered on the minutes.

Visitation and Inspection of Qualifying Examinations.

The Executive Committee presented a series of revised standing orders for adoption by the Council relating to the visitation and inspection of qualifying examinations.

The PRESIDENT said that at the last meeting some ambiguity was discovered in the standing orders, and the Executive Committee had considered the matter, and the orders now proposed were the result of its consideration. The only question was whether they would express more clearly what the Council had acted upon for years. There was no change.

On the motion of Dr. MCVAIL, seconded by Sir VICTOR HORSLEY, the Council went into committee to consider the orders.

Dr. WINDLE moved the adoption of the first rule—viz.:

(1) The qualifying examinations of the several licensing bodies in the three divisions of the kingdom shall be visited and inspected on behalf of the Council from time to time as the Council shall direct.

Dr. MCVAIL said that he had no objection to the rule if it were interpreted in the sense that visitation and inspection were to be distinct and different. If visitation and inspection meant the same thing he asked that the matter should be further looked into.

The PRESIDENT said that Dr. McVail was anticipating the discussion on the other rules. They had more than one legal opinion that visitation was a right conferred upon them by the Act of 1858, which could be carried out at any time they pleased, and that inspection was a right conferred upon them by the Act of 1886 which could also be carried out at any time. Therefore inspection and visitation could be carried out together if they thought fit. This rule did not force them to combine the two if they chose not to do so. He would point out that the tenth rule said that it would be the duty of the visitors and inspector to report "jointly or severally." The word "reports" was also used.

The motion was agreed to.

The second standing order was also approved after some discussion. Its terms were:—

The visitations shall be conducted by one or more members of the Council deputed as visitors for that purpose, in pursuance of Section 18 of the Medical Act, 1858; the inspections by an inspector not a member of the Council, appointed in pursuance of Section 3 (2) of the Medical Act, 1886.

At this stage the Council resumed and then adjourned till the following day, when the time was taken up by the consideration of penal cases.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the first examination of the Board at the April quarterly meeting of the examiners in the subjects indicated:—

Chemistry and Physics.—Frank Bashford and William Conrad Comissiong, St. Mary's Hospital; Richard Christopher Clarke, University College, Bristol; Donald Maxwell Cox and Robert Sydney Doran, Charing Cross Hospital; Guy de Hoghton Dawson, Middlesex Hospital; Henry Gray Woodhouse Dawson, Pharmaceutical Society; John Griffith Edwards, City of London College; Frederick Charles Endean, Guy's Hospital; Bernard Goldsmith, Middlesex Hospital; Douglas Hamilton, King's College Hospital; Geoffrey Richard Heard, London Hospital; Ernest Howden and Charles Haley Knowles, Yorkshire College, Leeds; Latafat Husein Khan, Bombay University and St. Bartholomew's Hospital; Geoffrey Leo Lawlor and John David George Little, St. Mary's Hospital; Frank Augustus Lowe, Battersea Polytechnic; Philip Stanley Martin and Claude Woodham Morris, University College Hospital; John Frederick Henry Morgan, University College, Bristol; Leonard William Mortimer, London Hospital; John Thomas Parry, University College, Cardiff; Percy Edward Hughes Patey, Guy's Hospital; George Evan Henry Holt Phillips, Birkbeck Institute; William Howard Pickup, University College Hospital and Birmingham University; William Thomas Quinlan, University College, Cardiff; George Gordon Rigby, Manchester University; Thomas William Ramsden Strode and Gerald Whittingdon, Charing Cross Hospital; Mom Chow Thavara and Frederick Charles Victor Thompson, Guy's Hospital; John Glegg Watson, London Hospital; and Arthur John Ormsby Wigmore, University College, Bristol.

Elementary Biology.—Richard William Annison, Middlesex Hospital; Albert Malcolm Barlow, London Hospital; Thomas Mulholland Bellew, University College, Liverpool; Richard Shaw De Courcy Bennett, Guy's Hospital; William Percy Bonner, Birkbeck Institute; John William Bowen, University College, Bangor; Thomas Rufus Bowen, City of London College; Thomas Frederick Brown, Guy's Hospital; Edward Moxon Browne, Stacey Archer Burn, Herbert Vaudrey Capon, and Guy Oldham Chambers, St. Bartholomew's Hospital; John Joseph Clarke, London Hospital; Leonard Kingsford Cooper and William Russell Cooper, University College Hospital; Donald Maxwell Cox and Ralph George Dainty, Charing Cross Hospital; James Thomas Daly and Guy De Hoghton Dawson, Middlesex Hospital; Samuel Danziger, Manchester University; Thomas Ronald Davey and Sydney Barron Depree, St. Mary's Hospital; Anthony Dias, St. George's Hospital; Robert Sidney Doran, Charing Cross Hospital; Henzell Howard Dummere, London Hospital; Paul Dvorkovitz and Gordon Ernest Dormer Ellis, St. Bartholomew's Hospital; Cyril Douglas Faulkner and Edwin George Percival Faulkner, St. Mary's Hospital; Bertram Flack and Gilbert James French, Manchester University; Robert Francis Fuller, London Hospital; Norman Henry Gilbert, St. Mary's Hospital; Bernard Goldsmith, Middlesex Hospital; Clifford Hall, John Bowling Holmes, Geoffrey Jefferson, and John Arthur Jones, Manchester University; Douglas Hamilton, King's College Hospital; Charles Herbert Hart, University College, Bristol; Geoffrey Richard Heard, London Hospital; John Brook Henderson Holroyd, University College, Sheffield; Ernest Howden, Yorkshire College, Leeds; George James Proctor Huddleston, Birmingham University; Stanley Goddin Johnson, Middlesex Hospital; James Phillips Jones, Guy's Hospital; Latafat Husien Khan, Grant Medical College, Bombay, and St. Bartholomew's Hospital; Charles Haley Knowles and John Murgatroyd Land, Yorkshire College, Leeds; William Ewart Latham and David Charles Lloyd, University College, Liverpool; Stanislaus Joseph Lauder, London Hospital; James Arthur Richard Lee, Sheffield University; Frederick Martin Lipscomb, King's College Hospital; John David George Little, St. Mary's Hospital; Harold Bishop Logan, University College, Bristol; James Parkinson Lupton, St. Thomas's Hospital; John Charsley Mackwood and Robert Telford Martin, London Hospital; Philip Stanley Martin, University College Hospital; Valentine Cleeve Martyn, St. Mary's Hospital; Henry William Mends May and Harold Gordon Miller, St. Bartholomew's Hospital; Leonard Milton and Marwood Mintern Munden, Guy's Hospital; Frank Cyril Morgan, University College, Bristol; Humphrey Neame, London Hospital; Henry Clarence Wardleworth Nuttall, University College, Liverpool; Richard James Paget, Middlesex Hospital; John Thomas Parry, Reginald Arthur Pittard, and James Powell, University College, Cardiff; Thomas Eennion Bourne Price and Edward Holmes Rainey, London Hospital; Charles Edward Reckitt, Guy's Hospital; William Alfred Reynolds and Thomas Stanley Rippon, University College, Bristol; Charleton Edmund Rice, Technical College, Derby; Arthur Burch Rosher, St. Paul's School; Samuel Shepheard and Thomas Edmund Alexander Stowell, St. Thomas's Hospital; Vere Edward Somerset, King's College Hospital; Cecil Gordon Sprague and Horace Steinbach, Guy's Hospital; Edwin Lawrance Sturdee, St. Bartholomew's Hospital; Francis Christopher Tibbs, James Massimo Todesco, George Ernest Vilvandré, Alexander Watson, Griffith Ellis Williams, and Duncan Wood, London Hospital; Walter Palmer Vicary, Guy's Hospital; Percival Dillon Warburton and Thomas Sykes Ward, Sheffield University; Leslie Ferguson Kennedy Way and Frederick Cecil Wright, St. Bartholomew's Hospital; Gerald Whittington, Charing Cross Hospital; and John Pryce Williams, Manchester University.

Practical Pharmacy.—John Henry Dyke Acland, St. Thomas's Hospital; Charles Amarasuriya, Ceylon Medical College and King's College Hospital; Berkeley Noel Ash, St. Bartholomew's Hospital; Harold Percivall Aubrey, Thomas Frederick Brown, Sidney Howard Browning and Vincent Ackroyd Palliser Costobadie, Guy's Hospital; Charles William Tresidder Baldwin,

Charing Cross Hospital; Edward John Blewitt, Leonard Howard Bowkett, and Malcolm Ogden Cruickshank, London Hospital; Percy John Chissell, Middlesex Hospital; Cecil Ernest Clay, Yorkshire College, Leeds, and Edinburgh University; George Leslie Curnock, John William Doherty, and Frederic Nicklin Doubleday, private study; Sidney Herbert Daukes, Cambridge University and London Hospital; Adolf Henry Coombe Dawes, University College, Bristol, University College, and Westminster Hospitals; George Bennicke Edwards, London Hospital; Henry Granger, St. Thomas's Hospital; George Frederick Greening, Guy's Hospital; Cyril Verity Griffiths, King's College Hospital; Bernard George Gutteridge, private study; Reginald Beaumont Heygate, Middlesex Hospital; Richard Rossiter Huxtable, Charing Cross Hospital; Robert Rutson James, St. George's Hospital; David Morgan Jones, Glasgow University and London Hospital; Arthur Rieusset Littlejohn and Urban Marks, St. Mary's Hospital; Albert Lawrence Loughborough, St. Thomas's Hospital; Thomas Fletcher Lumb, Cambridge University and Middlesex Hospital; Owen Reginald McEwen and Eeblin Storey Molyneux, London Hospital; Alexander Ernest McKenzie, George Gordon Rigby, and Robert Marmaduke Riggall, Manchester University; Albert Clifford Morson, Middlesex Hospital; Cecil Walpole Richard Preston, Guy's Hospital; Harold Edgar Priestley, St. George's Hospital; James Edmund Smith, Alan Richmond Snowdon, Charles Fitz-Gerald Wilkes, and Kenneth Wolferstan, St. Bartholomew's Hospital; William Hugh Raymond Streatfeild, Cambridge University and St. George's Hospital; George Thom, King's College Hospital; Harold Thomsett Treves and James Montague Wyatt, St. Thomas's Hospital; Richard Grenville Vaughan, University College, Bristol; and Harold Douglas Wyatt, Guy's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—A. Bernfeld (Section I.), Royal Free Hospital; J. A. Davies (Section II.), Manchester; J. W. Rollings, Charing Cross Hospital; J. L. Schilling (Sections I. and II.), Leeds; I. C. Thorburn (Section II.), Liverpool; J. A. R. Wells (Sections I. and II.), St. Thomas's Hospital; G. Wilmersdoerffer (Sections I. and II.), Royal Free Hospital; and R. W. L. Wood (Sections I. and II.), Leeds.

Medicine.—R. Heathcote (Sections I. and II.), Manchester; W. V. Pegler (Section I.), Leeds; C. A. Sampson (Sections I. and II.), Charing Cross Hospital; and J. L. Schilling (Sections I. and II.), Leeds.

Forensic Medicine.—J. B. Bradley, Birmingham; W. G. H. Cable, London Hospital; W. L. Crabtree, Leeds and Charing Cross Hospital; A. G. C. Findlay, University College Hospital; R. J. O. Harley, Dublin and McGill; R. Heathcote, Manchester; W. A. King, Charing Cross and St. George's Hospitals; W. S. Mitchell, St. Mary's Hospital; W. G. O'Malley, London Hospital; J. L. Schilling, Leeds; and A. L. Walters, St. Thomas's Hospital.

Midwifery.—W. V. Pegler and J. L. Schilling, Leeds; R. Spears, University College Hospital; and E. Sutcliffe, Leeds.

The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: J. B. Bradley, J. A. Davies, R. J. O. Harley, J. W. Rollings, J. L. Schilling, I. C. Thorburn, J. A. R. Wells, and R. W. L. Wood.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—FELLOWSHIP EXAMINATION.—The following candidates having passed the necessary examination have been admitted Fellows of the College:—

C. A. K. Ball, B.Ch., &c., Univ. Dublin; J. J. Bell, L.R.C.S.I., &c., Edin.; J. S. Dunne, L.R.C.S.I., &c.; P. H. Falkner, L.R.C.S.I., &c., Captain R.A.M.C.; W. H. Hornibrook, L.R.C.S.I., &c.; J. P. Marnell, L.R.C.S.I.; T. J. Nicholl, L.R.C.S.I., &c.; and J. P. Ziervogel, L.R.C.S.I., &c.

The following have passed the primary part of the Fellowship examination:—

J. M. Alcorn, student, R.C.P. & S.I.; C. M. Benson, B.Ch., &c., Univ. Dublin; J. B. Butler, student, Royal Univ. Ireland; H. M. Johnston, B.Ch., Royal Univ. Ireland; J. M'Namara, student, R.C.P. & S.I.; and A. A. Murphy, student, R.C.P. & S.I.

TRINITY COLLEGE, DUBLIN.—At the previous medical examination the following passed in the subjects indicated:—

Anatomy and Institutes of Medicine.—Bethel G. H. Solomons and Arthur E. Knapp.

Physics and Chemistry.—Thomas P. S. Eves, James P. S. Dunn, and Francis W. H. Bigley.

Botany and Zoology.—Richard H. Mathews, Thomas A. Watson, Henry H. James, and James D. Murphy.

At the final examination in surgery held in Trinity Term the following candidates were successful:—

William J. Powell, George MacG. Millar, Charles R. Morris, John Murdoch, Joseph W. Houston, Henry H. A. Emerson, William Nunan, John A. Pringle, Cecil A. Boyd, William G. Harnett, Cecil Scalfe, Montgomery D. Ferguson, Charles C. Williams, and William F. Samuels.

FOREIGN UNIVERSITY INTELLIGENCE.—*Bologna:* Dr. Emilio Cavazzani of Padua has been recognised as *privat-docent* of Pharmacology.—*Florence:* Dr. Nazareno Tiberli has been recognised as *privat-docent* of Bacteriology.—*Budapest:* Dr. Johann Wenhardt has been recognised as *privat-docent* of Internal Medicine.—*Prague (German University):* Dr. Friedrich Ganghofner and Dr. Alois Epstein, Extraordinary Professors of Children's Diseases, have been promoted to Ordinary Professorships.—*Vienna:* Dr. Robert Brewer has been recognised as *privat-docent* of Internal Medicine and Dr. Otto Loewi as *privat-docent* of Pharmacology and Toxicology.

H.R.H. the Duchess of Albany has promised to attend a garden fête to be held at the Manor House, Stoke D'Abernon, Surrey, by kind permission of Mr. and Mrs. F. A. Phillips, on Saturday, June 17th, in aid of the funds of the Royal Waterloo Hospital for Children and Women.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At a meeting of the President and Fellows of the College held on May 5th, Dr. A. Traill, Provost of Trinity College, Dublin, was unanimously elected an Honorary Fellow of the College.—The Licence in Medicine of the College has been conferred on Mr. J. E. St. George Queely and the Midwifery Licence on Dr. A. C. Dondy.

VOYAGES D'ÉTUDES MÉDICALES.—The recent visit to Paris of so many British medical men has caused renewed interest in this organisation. It was started by Dr. Carron de la Carrière and is a scheme for bringing the merits of the French health resorts into greater prominence than they now enjoy. For the purposes of the scheme France is divided into five districts. Each year a separate district is taken and the health resorts in that district are visited and examined in detail. This year's voyage is to be to the Pyrenees and the stations included will be, among others of the spas, Luchon, Barèges, St. Sauveur, Eaux Bonnes, and Eaux Chaudes, and of the health resorts Pau, Biarritz, and Arcachon. A feature of this journey is Lourdes to which great interest attaches from a psychological standpoint. The number of British adherents to the Voyages d'Etudes Médicales has hitherto been small and it would be highly fitting and very gratifying if the excellent relations recently established could be cemented by a considerable accession to the number this year. The time of the year selected is the first week in September; the price is very moderate, amounting to about £12 for a fortnight's travelling and accommodation. The travelling is by first-class special train throughout and the accommodation is the very best which each place affords. Full particulars of this year's trip are not yet available but this, at any rate, is certain. The rendezvous is at Luchon on Sept. 1st, the stations to be visited are interesting and important in the highest degree, the district surpasses in beauty even that of the Alps, and last, but not least, visitors from this country will meet with a welcome the cordiality of which will surprise and delight them. Inquiries, which may be in English, should be addressed to Dr. Carron de la Carrière, 2, Rue Lincoln, Paris.

MODERN IMPROVEMENTS IN THE HYGIENIC CONDITIONS OF INDUSTRIAL OCCUPATIONS.—At a meeting of the Royal Statistical Society held on May 16th a paper, entitled "The Effect, as shown by Statistics, of British Statutory Regulations directed to the Improvement of the Hygienic Conditions of Industrial Occupations," was read by Mr. Leonard Ward, H.M. Inspector of Factories. The paper opened with a brief historical survey of the hygienic clauses of the Factory and Workshop Acts and the Coal and Metalliferous Mines Acts, and proceeded to review the well-known unhealthy conditions and absence of hygienic surroundings attending the employment of adults and children in factories and mines which obtained prior to, and during the early stages of, industrial legislation. The effect of progressive legislation in ameliorating the insanitary conditions was next considered from three different, but closely related, standpoints—namely, the effect on (1) the mortality-rates; (2) the "sickness experience"; and (3) the physique of the operatives employed in the several typical occupations under review. The steady improvement which has taken place in the conditions of employment in the cotton manufacture during a century of statutory sanitary reform was traced. The decline in the death-rates from phthisis and respiratory diseases in certain typical "cotton towns" was shown to be largely due to the enforcement of the hygienic clauses of the more recent Factory Acts, especially the Cotton Cloth Factories Act, 1889. Comparisons on the bases of weight and height were made between factory children of 1833 and factory children of 1873 and between non-factory children of 1833 and non-factory children of 1873. The results led to the inference that there had been a relative retardation of growth in children employed in

textile factories, and that one effect of factory legislation had been to prevent undue deterioration in this class of operative. In the sections relating to the pottery, white lead, and lucifer match industries it was shown that substantial improvement in the shape of less lead and phosphorus poisoning had resulted from the enforcement of special sanitary measures. With regard to the health of coal and ironstone miners the evidence proved that 50 years of statutory regulations had produced such salutary results that the mortality of coal-miners of the present day only slightly exceeds that of agriculturists. Mr. Ward estimated that more than 15,000 lives had been saved during the last 50 years solely by the prevention of explosions of fire-damp or coal-dust, and that this had been mainly brought about by the provision of "adequate ventilation" as required by the Coal Mines Act of 1855 and subsequent Acts.

THE LATE DR. J. E. DUTTON: AN IMPRESSIVE FUNERAL.—A mail which has arrived at Liverpool from the Congo confirmed the news of the sad death of Dr. J. E. Dutton, of the Congo expedition of the Liverpool School of Tropical Medicine, on Feb. 27th. His death was the direct result of overwork. He persisted in working during his convalescence from a severe attack of spirillum fever which he was at the time closely investigating. He was suddenly taken ill and after four days of unconsciousness died in the presence of Dr. J. L. Todd and Dr. Heiburg, other members of the expedition. The esteem in which he was held by the natives was very strikingly displayed at the funeral, which took place on Feb. 28th. A simple cross was placed on the coffin and the officers of the post laid a palm branch on it. There were 12 bearers, all native sergeants, and the coffin was preceded by a bugle band and followed by Dr. Todd, Dr. Heiburg, Commandant Verdick, and all the white officers, together with soldiers and natives, the latter saluting before joining in the funeral procession. Over 1000 people were present to see the coffin pass to its resting place and the Burial Service was read by Dr. Todd.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.—The annual banquet of the staff and members of the school took place at the Trocadéro Restaurant on May 18th, Surgeon-Colonel P. B. Giles, 30th Field Army Brigade, Senior Medical Officer, being in the chair. Colonel Giles, in responding for the school, said that the school was very prosperous and that nearly 700 medical officers from all parts of the empire had passed through it as well as some 4000 stretcher bearers. He recognised that the prosperity and the efficiency were due to the loyalty of the instructors, the officers, and the non-commissioned officers. He really thought that the new examination for promotion would be beneficial as it required further study and a more intimate acquaintance with the interior economy of the Royal Army Medical Corps, and that the examination was popular with medical officers was evident, for at the present moment the school had a large class preparing for it. The chief difficulty to be faced was the dearth of officers entering the service and he felt certain from his knowledge of affairs that the regulation course at Aldershot or elsewhere was an impossibility; not 1 per cent. of officers could afford the time required to attend. He thought and hoped that as there was a member of the Advisory Board present the Government might see its way to issue allowances to officers attending the school provided that they attended regularly and passed the required examination. Such a concession would induce a greater number to join the service which at the present moment was imperilled wholly and solely by reason that the Government did not hold out sufficient inducement for well-qualified men to join. He was glad to read in a recent speech of the Director-General that he intended to bring the Volunteer Medical Service more into line with the Royal Army Medical Corps and so obtain a higher state of efficiency from the senior medical officers; intelligent and liberal treatment of volunteer medical officers would create an efficient corps to supplement the Royal Army Medical Corps in time of national danger. During the late war had the Volunteer Medical Service been, as it should and very easily could be, made efficient then there would have been officers and men sufficiently trained to supplement the Royal Army Medical Corps and no need for the employment of civilians. During the evening the string band of the Cadet Battalion of the Royal Fusiliers gave an excellent selection of music. The arrangements for the banquet were made by the mess president, Surgeon-Captain E. M. Callender, and a very enjoyable evening was spent.

ON July 17th next, says the *Russ*, the Pan-Russian Dentists' Congress will open in St. Petersburg.

SEAMEN'S HOSPITAL, CARDIFF.—Sir W. T. Lewis has contributed £1000 to endow a bed, to be named "The Lady Lewis Bed," at the new Seamen's Hospital, Cardiff.

PRESENTATION TO A MEDICAL PRACTITIONER.—At the annual meeting of the Padstow (Cornwall) branch of the St. John Ambulance Association, Mr. Richard Palk Griffin, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., was presented with a cabinet containing cigars in appreciation of his services as honorary instructor.

DAWLISH COTTAGE HOSPITAL.—Mrs. Nosworthy of Dawlish, in Devonshire, has given £1200 to defray the cost of the reconstruction and enlargement of the Dawlish Cottage Hospital and the High Sheriff of Devon (Mr. Bayldon) has promised £120 for the heating of the new portion of the building.

DONATIONS AND BEQUESTS.—Mrs. Caroline Judith Stanier has by will bequeathed £1000 to the Salop General Infirmary and £1000 to the North Staffordshire Infirmary.—The British Home and Hospital for Incurables, Streatham, has received a gift of 10,000 shillings from Miss Thomas of London towards the 200,000 shillings for which appeal is being made.—The late Mr. James Donald, manufacturing chemist, of Glasgow, whose will has just been proved at over £106,000, left amongst other bequests to public institutions £3000 each to the three Glasgow infirmaries—the Royal, the Western, and the Victoria.

HOMES FOR INEBRIATES ASSOCIATION.—The report of this association, of which Sir Charles Cameron, Bart., M.P., is the president, for the year 1904–05, together with the twenty-first annual report of the Dalrymple Home at Rickmansworth, has just been published by Mr. H. K. Lewis, Gower-street, London, W.C. Though the number of patients presenting themselves for treatment was less than last year and financially the home accounts show a loss on the year's working of £74 10*s.* the work of the association has been satisfactory and the valuable services of Mr. F. S. D. Hogg, the medical superintendent of the Dalrymple Home, and his staff are cordially acknowledged by the committee of management. Mr. Hogg, in his report, states that during the year eight patients were admitted under the provisions of the Inebriates Acts and 23 as private patients, 31 in all.

With regard to applications for admission, each year I receive urgent appeals from persons asking advice as to what steps they should take to compel alcohol or drug inebriates to enter a retreat. So long as the inebriate steers clear of illegal acts I can advise only persuasion, and I become more and more convinced of the necessity of a legislative enactment framed to provide for the enforced treatment of inebriates who are not law-breakers.

34 patients have been discharged during the year and 16 remain under treatment. Adding this number, 16, to the total recorded discharges the result, 771, is the number of patients admitted since the home was opened. Donations and promises of annual subscriptions will be received by the chairman, the Rev. Canon Duckworth, D.D., 5, Abbey-road, St. John's Wood, London, N.W., and the secretary, Mr. John Swinford Francis, Court-chambers, 173, Marylebone-road, London, W. Cheques may be crossed "London and County Bank, Paddington Branch."

CENTRAL MIDWIVES BOARD.—A meeting of the Central Midwives Board was held at 6, Suffolk-street, Pall Mall, London, on May 19th, Dr. F. H. Champneys being in the chair. It was reported to the Board that a certain midwife who had been admitted to the roll was not a person of good character. According to a newspaper cutting received this midwife was concerned in a police-court charge in an assault case connected with a man with whom she was stated to be living, though not married to him. It did not appear to the Board that such a report of immorality could be acted upon by the Board. In the case, however, of another woman who applied to be placed on the roll as a midwife the Board refused the application in consequence of a communication received from the clerk of the county council in whose district the woman resided informing the Board that the woman had been convicted of being drunk on three successive days in one week. The Board discussed certain applications from medical men as teachers of midwifery

under Rule C 1 (3). Mr. E. Parker Young urgently insisted on the necessity of the Board recognising general practitioners as teachers of midwifery because, by refusing to sanction many of these applicants as teachers, a great injustice was done to women desirous of being trained as midwives. These general practitioners who were refused the sanction of the Board as teachers of midwifery had been instructing midwives in midwifery for many years. The localities where these general practitioners gave lectures were at some distance from institutions for training midwives. It was unfair to these poor women to make them travel in some cases more than 30 miles to attend lectures on midwifery, when by sanctioning general practitioners as teachers any such hardship could be avoided. General practitioners were perfectly competent to teach these women and it was the duty of the Board to make the Act work as easily as possible for women training as midwives. After Dr. Champneys had said that there had not been any boycotting of general practitioners, Mr. Young submitted a motion that certain general practitioners should be recognised as teachers of midwifery. The motion, however, was not adopted by the Board.

BRISTOL LUNATIC ASYLUM.—Dr. J. V. Blachford, the medical superintendent, in his annual report to the visiting committee of this institution for 1904 states that the percentage of recoveries on the admissions, excluding transfer cases, was 42·59. 112 patients were discharged recovered during the year, 10 being transferred to other asylums. There were 110 deaths, the death-rate on the average number of resident patients being 12·02 per cent.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Bubonic Plague in India and Scotland.

Mr. SEYMOUR ORMSBY-GORE has given notice of his desire to call attention to the increase of bubonic plague in India and to propose a motion and Mr. WYLIE has put down a similar motion as to the outbreak of plague at Leith and other parts of Scotland. No day has been fixed for either motion.

HOUSE OF COMMONS.

THURSDAY, MAY 18TH.

THE LANCET and Vaccination.

Sir JOHN ROLLESTON asked the President of the Local Government Board whether he was aware that the recently published opinions of Dr. S. Monckton Copeman and of the Commissioners appointed by THE LANCET in 1900 and 1902 to examine the various lymphs on sale in this country, supported the view that large marks were not an evidence of efficient vaccination, and that small marks were not an evidence of inefficient vaccination; and that the same authorities had shown that in consequence of the modern methods of vaccination it was possible to produce the Board's stipulated area of vesiculation—viz., not less than half a square inch—without leaving anything like a corresponding area of marks; and whether he proposed to take any steps to amend the Board's Vaccination Order of 1898 so as to make it more consistent with the latest medical evidence on these points.—Mr. GERALD BALFOUR answered: Dr. Copeman informs me that in his opinion large scars are not necessarily evidence of efficient vaccination and small scars are not in themselves evidence of inefficient vaccination, but that usually the area of the scar corresponds fairly closely with that of the vesicle which preceded it. These opinions do not, as I am advised, render it necessary or desirable to amend the Vaccination Order, 1898, which does not make the area of the scar a criterion of successful vaccination.

Disinfecting Clothing of Small-pox Patients.

Mr. DONAL SULLIVAN asked the Chief Secretary for Ireland whether his attention had been called to the fact that the Irish Local Government Board now stated that the disinfecting chamber erected in 1895 in the Athlone workhouse under the system known as Dr. Scott's Patent Hot Air Disinfecting Chamber, and approved by the Board, was useless and why the Board sanctioned the necessary loan.—Mr. LONG replied: The Board has not stated that this disinfecting chamber is useless but in reply to the guardians' inquiry whether it was sufficient for the purpose of disinfecting the clothing of small-pox patients it stated that such a chamber is not to be depended upon and that disinfection after small-pox requires special efficiency. The Board understands that disinfection by hot air is rapidly falling into disuse. Experience has shown that such disinfection is not as efficient as disinfection by steam, as the hot air does not penetrate the clothing so thoroughly as steam. When sanctioning a loan in 1895 the Board imposed no conditions upon the guardians as to the description of disinfector which they should obtain.

Blood Poisoning in an Infirmary.

Mr. SLOAN asked the Chief Secretary for Ireland whether he was aware that cases of blood poisoning occurred in the Cootehill union infirmary in January, 1904, alleged by the medical officer and inspector to be due to rotten floors and want of sanitary accommodation; and whether, seeing that an appeal had been made on behalf of the seven electoral divisions in the county for the necessary alterations to be made and that Dr. Biggar was deputed by the Local Government Board to confer with the board of guardians, he could say what action, if any, had been taken in the matter.—Mr. LONG replied: Cases of septicæmia occurred in this workhouse in January, 1904. The medical officer was of opinion that the germs of the disease were in the floors and possibly in the walls. The Local Government Board's inspector inquired into the matter and reported that it was difficult to find the direct and definite cause of the outbreak, as there are several ways in which infection of the kind could be conveyed. He advised the guardians to make certain alterations and thereupon they decided to obtain an estimate of the cost. No further action has, however, been taken by the guardians but the new board will come into office next month and the Local Government Board will urge it to take the matter in hand.

MONDAY, MAY 22ND.

Insanitary Mattresses and Disease.

Mr. FULLER asked the President of the Local Government Board whether his attention had been drawn to the insanitary condition of certain cheaper kinds of flock used in the manufacture of cheap mattresses; and whether he would take steps, by legislation or otherwise, for the prevention of the spread of infectious disease arising from the use of insanitary and unwashed materials.—Mr. GERALD BALFOUR said: My attention has been drawn to the sale and use of unwashed flock for bedding and other purposes. The compulsory cleansing of the materials referred to could not be generally secured under the existing law. The point has been noted for consideration but I cannot at present hold out any prospect of legislation on the subject.

Evasions of the Medical and Dental Acts.

Sir JOHN BATTY TUKE asked the Home Secretary whether he had received an opinion from the Law Officers of the Crown concerning evasions of the Medical Acts and of the Dentists Act under the provisions of the Companies Acts; and, if so, whether he would communicate it to the House.—Mr. AKERS-DOUGLAS said: The Board of Trade has received an opinion from the Law Officers, but I am unable to accede to my honourable friend's request, as such opinions are treated as confidential.

TUESDAY, MAY 23RD.

The Prevention of Malarial Diseases.

Sir MANCHERJEE BHOWNAGGREE asked the Secretary of State for India whether he was aware that the efforts of the Mexican Government and the Superior Board of Health of Mexico to stamp out yellow fever and all malarial diseases by exterminating the mosquito by the adoption of certain scientific methods had met with considerable success; and whether, having regard to the fact that malarial fevers were constantly prevailing in parts of India, he would cause inquiries to be made in connexion with the Mexico experiment with the object of giving it a trial in India.—Mr. BRODRICK replied: I have seen a pamphlet on the subject by the Superior Board of Health at Mexico and propose to send a copy of it to the Government of India. Experiments of a somewhat similar kind have for some time past been in progress in India and the experts conducting them are doubtless aware of what is being done in the same direction in other parts of the world.

The Medical and Dental Registers.

Mr. WEIR asked the Home Secretary whether he could state how many medical and dental practitioners had been struck off the Register during the last ten years for infamous or disgraceful conduct; and in how many instances the names of practitioners had been restored to the Register during the same period.—Mr. AKERS-DOUGLAS answered: I have asked the General Medical Council to furnish me with this information and when it is received I shall be happy to communicate it to the honourable Member.

SELECT COMMITTEE ON REGISTRATION OF NURSES.

The Select Committee of the House of Commons which is considering the expediency of the registration of nurses heard further evidence on May 18th.

Sir Victor Horsley and Dr. Langley Browne appeared as representatives of the British Medical Association and sat together at the witnesses' table.

Replying to the CHAIRMAN (Mr. H. J. TENNANT), Sir VICTOR HORSLEY said that the British Medical Association consisted of close upon 20,000 medical practitioners and it was therefore, in their opinion, the only voice of the medical profession. Other witnesses who had appeared from the corporate bodies did not represent the medical profession but simply the councils of those bodies—such as the College of Physicians. He was chairman of the representative meeting of the Association at Oxford last year. This meeting consisted of delegates chosen by each division of the Association. The following resolution was passed at the Oxford meeting:—"This meeting approves of the principle of the registration of nurses; and further resolves that the foregoing resolution be transmitted to the Select Committee." The representative meeting did not in any way enter upon the provisions of the two Bills now before Parliament, keeping an absolutely open mind as to details of legislation that might be proposed. The resolution was carried *nemine contradicente*, there being no opposition as far as he could recollect. The vote was taken by a show of hands. About 154 members were at the meeting out of a possible attendance of 200. In the discussion some delegates stated that they were not directly instructed by their divisions to vote on the point but they had full powers, the matter having been previously referred to their divisions. As far as he could remember one or two critical speeches were made against the resolution. He had received notice that at the Leicester meeting in July this year one division would appear in opposition to this vote. Practically all the members present at last year's meeting supported the resolution and the feeling was so clear that he did not think this further resolution at the Leicester meeting would have any chance of being carried. The matter of registration of nurses and the principle of it had been before the British Medical Association for a very considerable time—about 20 years altogether. The first vote that was taken in a public meeting of the Association occurred ten years ago on July 30th, 1895. At the general meeting of the Association held in

London at which he was present it was resolved with only one dissentient that "in the opinion of this meeting it is expedient that an Act of Parliament should as soon as possible be passed providing for the registration and education of medical, surgical, and obstetric nurses and the council of this Association are therefore requested to consider this matter and to take such measures as may seem to them advisable to obtain such registration." The question would be voted upon by the delegates in July and the committee might assume that any resolution they came to would be the settled opinion of the British Medical Association. With regard to the practicability of registration he would not say that the difficulties attached to the revision of the register would be too great compared with the benefits arising from registration. The machinery to deal with the deletion of names would be the disciplinary control of the whole Central Board or Council, not a sub-committee.

What do you say about the argument that by registration they would put the nurse into competition with the medical man?—Of course, that is a matter of personal opinion. We are not in any way instructed to express anything more than our personal opinion. My personal opinion is that it would not bring her more into competition with the medical man than she is now. Competition is, perhaps, the wrong word to use. At the present time nurses do things which, of course, they ought not to do. They often take upon themselves responsibilities which they are not qualified to carry out. In that sense they are competing with the medical man when they do that, but I think the remedy would lie in disciplinary control of the Central Board.

Dr. LANGLEY BROWNE: The better trained the nurse is the less likely she will be to do that.

Sir VICTOR HORSLEY, continuing, said there must be a State examination by a statutory authority, managed by an examination board appointed by the Central Council, and that examination should alone qualify the nurse for registration of her name.

There is a suggestion that you might give a nurse a certificate and give her a false hall-mark?—With all submission I think that contention is absurd because it applies to the registration of every professional man. If an individual has gone through a long course of training to acquire special knowledge that individual is justified in requiring registration from the State and unless the individual misbehaves in any way that registration remains good. Persons, he continued, did not lose the knowledge but if they did not keep themselves up to the general progress of knowledge they were not employed. The public were keen critics of nurses and not always just critics and they had their safety in their own hands in that respect. He could not think that there was anything in the argument to which the chairman had referred. He did not think that it would be difficult to secure a sufficient number of nurses when registration was required. His suggestion about the registration fee was that it should be two guineas and that the nurses should pay nothing for examination.

One or two alternative suggestions to registration have been made. One was that instead of registering the nurses you should register the training schools or institutions?—I think that would have no value whatever because it would be practically putting the present system on a statutory footing. I think the main objection to the present system is that the control of a certain number of nurses as regards their relations to the public is really under one private individual—namely, the head of the nursing institution. I do not think any private individual ought to control a number of persons who spend time and money in educating themselves for a purpose that is for the benefit of the State. There might be danger in giving such powers into the hands of private individuals.

Dr. LANGLEY BROWNE: If there is any fault in the individual you can only go against the institution.

Sir VICTOR HORSLEY, resuming, said there were a considerable number of incompetent persons nursing all kinds of sick at present.

Dr. LANGLEY BROWNE observed that the general body of medical practitioners, particularly in the country, wanted the registration of nurses even more than the consulting medical men in London.

Sir VICTOR HORSLEY, replying to further questions, said he was not qualified to express an opinion on the proposal that there should be a class of nurse helps, but he was not at all sure that it would work favourably to the higher class nurses, because he did not think the public would discriminate between the two classes.

Dr. LANGLEY BROWNE said he represented a large society in the Midlands, 200 or 300 strong, and the members unanimously wanted registration to protect themselves from incompetent nurses being sent to them. It was the country practitioner more than anybody who felt the want of it. The London people were very much better off. He thought the opposition came from London altogether.

Sir VICTOR HORSLEY, speaking on the relation of the British Medical Association to the practitioner, said it was a professional centre. With regard to medical and surgical homes he and many others considered that the evils to the public resulting from those homes not being registered were very considerable. Every home should be registered and the duty of occasional inspection should devolve on the Central Nursing Council.

By Mr. PIERPOINT: If there was only a directory of nurses instituted they would have no coordination of examination. It would, however, be a help to the public. The General Medical Council had the power of laying down the curriculum of medical men and the Nurses' Council would have the same power in the case of nurses. A nurse would have to do three years' training because she had to acquire so much by experience. He had often known partially trained nurses pose as perfectly trained nurses and receive the same remuneration from patients.

Dr. LANGLEY BROWNE: As a rule they do charge the same and pose as fully trained when they go out as nurses.

In answer to Mr. DOUGLAS, Sir VICTOR HORSLEY said it was proposed in the Bills before Parliament that registration should be voluntary but the feeling of the British Medical Association was that every nurse should be registered. In any future amending legislation there should be a penal clause punishing persons practising nursing for gain and illegally entering into competition with a person trained and registered. That was undoubtedly the idea in the minds of the British Medical Association. He would, however, regard as satisfactory a system of voluntary registration if managed by the State.

Mr. C. HOBHOUSE: Do you agree that nobody is to be allowed to nurse for gain unless after three years' training and registering?—Dr. LANGLEY BROWNE: Quite. I think that is the idea. Of course, it does not mean that one woman must not go to nurse another but that she ought not to be allowed to follow the profession of a nurse.

Sir VICTOR HORSLEY: The word in the Midwives Act is "habitually." As to the composition of the Central Board the opinion of the Medico-Political Committee was that the proposals in the two Bills were extravagant and that the boards therein proposed were far too large. He would propose a board on which the nursing and medical element would largely outweigh the lay element. He would agree to the proportion of three to one. He did not see that the lay element would be of much service in the administration of the board. He had not heard that there was a feeling amongst the members of the Midwives Board that the lay element on the Board was far too small. The stiffness of the examination would depend on the curriculum. At present some examination papers given to nurses by some of the institutions and hospitals were absurdly stiff. They represented an amount of anatomical knowledge which no one could really acquire without thorough dissection and of course nurses did not carry that out. On the other hand, some hospitals let them through too easily. The board might lay down a schedule of examination on a line with the best nursing teaching in the average London hospital. The certificate would be one of nursing knowledge and would have no reference to moral character. In future the certificate would hall-mark a nurse but the moment she committed an offence she would pass under the disciplinary control of the Central Board. By a better system of education which registration would secure the public would gain in having a better class of nurse. He did not think there would be a shorter supply of nurses.

By Sir JOHN STIRLING-MAXWELL: He would not rely on the register for anything more than the proper training of the nurse. He would not have a classification.

By Mr. DOUGLAS: With regard to habitual nursing for gain he would explain that nursing meant a heavy responsibility. A nurse had to see, for instance, some dangerous change in a patient and it was not fair to the public that the woman who performed such duties should not have been through a hospital. If the public chose to run the risk it was its own affair but he did not regard the position as an ideal medical state of things at all. If a so-called district nurse applied a fomentation or gave a dose of medicine that would not be defined as nursing. Many medical men felt strongly that they would not have a woman continuously looking after a patient unless she was properly trained.

By Mr. AMBROSE: He was aware that district nurses very frequently trod on the corns of the medical practitioners but they could not control them and they ought to put them under a Central Board. That was one of the strongest arguments in favour of registration.

Dr. W. BEZLY THORNE, representing the Royal British Nurses' Association, concurred in the main with the evidence of Sir Victor Horsley. He thought Sir Victor Horsley was a little premature in requiring universal application. The time was hardly ripe for making it penal for nurses to do nursing when not on the register, but he hoped the time might come for that. He did not think there would be any practical difficulty in the revision of the register. The Royal British Nurses' Association did that constantly. The number of nurses who had registered with the association was 4000 and there were 3000 on the register now. There would be a rush for registration, he thought, the moment it was instituted by the State. In reply to Mr. Ambrose he declared that the Incorporated Medical Practitioners' Society was in favour of registration.

By Sir J. STIRLING-MAXWELL: The British Nurses' Association register was a guarantee of moral character and fitness. They had erased some seven or eight names for habitual drunkenness, being involved in divorce cases, and so on. This purging of the register had a wholesome and good effect. He would attach very little importance to a State register which did not require unexceptionable testimonies as to moral character.

Dr. PERCY ALLAN said that he was in general practice and he disagreed almost entirely with what Sir Victor Horsley had said. There was a useful class of women who were employed by poorer people who could not pay for the best available skill. The majority of patients of the working classes paid for their own nursing although they went frequently to hospitals. Great skill was not demanded frequently by those classes. When it was they were sent to hospital. He saw no danger in the kind of nursing to which he referred. It was necessary that there should be unskilled nurses working at a low rate. With regard to penalising nurses who were not registered he pointed out that there was no penal clause in the Medical Act to prevent a man acting as a doctor so long as he did not call himself a doctor. He would not be against registration if it was voluntary. He did not believe that registration would produce a better class of nurses. It would simply mean that the nurse was capable for her work and her attributes as a woman would not be considered. The uppish person would try to outdo the medical man and would flourish those certificates before her patients, with the result that they must consider that they did not want a medical man. He had not heard of any general desire on the part of practitioners in favour of registration. He had brought up a motion himself at the Incorporated Medical Practitioners' Society but it was put aside because it had been imperfectly considered. The British Medical Association, he pointed out, was officered largely by the consultants in London and other large towns. He did not think it quite represented the general man in practice.

Mr. J. S. WHITAKER, medical secretary of the British Medical Association, said he wished to reply to the statement of the last witness regarding the representative character of the British Medical Association. The meeting of which Sir Victor Horsley spoke was a meeting of representatives drawn from all over the country. Each representative was chosen by the physicians in a particular district. The matter was referred to the members of the association by a memorandum sent out two months before the meeting. 55 per cent. of the profession was represented at the association and the delegates sent up to the meeting were, with the exception of two, general practitioners. He thought it would be unfortunate if the committee should get the impression that the British Medical Association was not representative of the general practitioners of the country.

The committee adjourned.

Further evidence was taken on Tuesday, May 23rd.

Mrs. C. HOBHOUSE was first called. She stated that she had been on the committee of the Rural Nursing Association of Wiltshire since 1893 and had been treasurer, secretary, and chairman successively of

that body. There were 15 nurses on the staff. Approximately 1000 nurses had passed through the hands of the committee, some for rural purposes and some for colonial work. She hoped that any Act which dealt with registration would not overlook the consideration of nurses fit to nurse the poor in the rural districts.

The CHAIRMAN: I think the committee would certainly bear that in mind.

WITNESS, continuing, said that the proportion of trained rural nurses was about 1 in 8. She had been satisfied with the manner in which they had discharged their duties. As a rule in rural districts the nursing required was of a simple character, the acute cases going to hospitals. Therefore, in the first place the rural district could not support the trained nurse financially and, in the second place, the best class of highly trained nurses would not remain because of the lack of acute cases.

The CHAIRMAN: If a Registration Act were passed similar to the Midwives Act you would be rather apprehensive that the partially trained nurse would not be able to nurse as she does now?

WITNESS: It depends on the lines which registration follows. It may be done in such a way as to make it extremely difficult to get probationers. Continuing, Mrs. Hobhouse said she thought that the best course to pursue with regard to these partially trained nurses was probably that suggested in the resolution of the British Medical Association. If it were possible for rural nurses to get certificates showing they were capable of doing a certain class of nursing and thereby work up to a higher grade later she thought it would be extremely advantageous. Her experience was that there was a great shortage of highly trained nurses in all parts of England. She thought the reason was largely that the training certificate usually approved by most committees was that of the London hospitals. There were not enough nurses turned out in London to meet the demands and therefore nurses trained in the provinces were also forthcoming. The training in many of the provincial hospitals was quite as good, if not better, than in many London hospitals, but broadly speaking in the public mind it was not so.

The CHAIRMAN: Would it not help the situation to have a system of registration?

WITNESS: It depends on how it is done. If it is made too stringent the shortage would be intensified. Hospitals might coöperate for the purpose and so level up the training in hospitals.

The CHAIRMAN: If registration were made reasonable you would welcome it?

WITNESS replied that if it were made reasonable it would be rather helpful. It might tend to give the provincial hospitals a status they did not now hold, although they deserved it.

The CHAIRMAN: How would you classify the nurses to be employed in the rural districts?

WITNESS: Primarily they would be obstetrical.

The CHAIRMAN: Would there not be some overlapping? Would they come under the Midwives Act?

WITNESS: Certainly.

The CHAIRMAN: Would you have them undergo two examinations?

WITNESS: I do not think you could make them pass both.

The CHAIRMAN: A nurse certified by the Midwives Board would not be allowed to nurse cases of pneumonia and diphtheria?

WITNESS: It would entirely depend on her knowledge.

Continuing, Mrs. HOBHOUSE said it would be most harmful to make it a penal offence for any person to nurse for gain unless she obtained a certificate.

As regarded the question of nurses entering into competition with medical men, WITNESS said she had found in the country many medical men feared such competition. In some instances there was, she thought, ground for that fear, but generally speaking there was not. It depended very much on the status of the medical man, whether he had been established for some years or had only just started. In the latter case people were apt to send for the nurse.

WITNESS thought some scheme of registration would be helpful but she wished to see something more definite before committing herself to any scheme. In the first place, the examination should be based upon a curriculum for training. There might be a minimum time limit for the highly-trained nurse of two years, although she did not think it was necessary. Another essential feature was that the training should not be in one hospital and hospitals should have the power of coöperation for the purpose. The mere fact of registration should not be regarded as a guarantee of a nurse's character. She would also have examinations based on a curriculum for the less highly-trained nurses who were quite able to pass an examination.

Replying to Mr. DOUGLAS, WITNESS said if a minimum training could be arranged for rural nurses so as to make it a first step in the nursing profession it would assist rural nursing considerably. The fact of other nurses having their certificates recognised by the State would be detrimental to the supply of rural nurses because they had to look forward after their time of service in the association for promotion and the tendency would be for every sort of appointment to go to registered nurses. She thought the disadvantage would be removed if hospitals were empowered to recognise in some degree as an instalment of training the work done outside. If nursing associations were allowed to certify the first year of a three years' curriculum the objection would be removed.

Questioned by Dr. C. F. HUTCHINSON, WITNESS thought that the standard of the nurses who took up training had considerably improved during the last 12 years. Registration should be simply by classification or two grades for entrance examination.

Dr. W. G. DICKINSON was next called. He said he had been in practice in London for many years. He considered the registration of nurses was unnecessary because the present arrangements were quite satisfactory. If the wealthy had bad nurses it was their own fault, and if the poor had bad nurses it was the fault of the institutions that sent them out. Compulsory registration of all nurses was quite out of the question. The only difficulty he had in regard to nurses was due to his own fault. He could recall several unsatisfactory nurses whom he took on their own recommendation instead of applying to a suitable body or hospital. He would be in favour of registering nurses' homes and institutions. He thought the scheme of registration would fail financially because the nurses would not register in the numbers that had been estimated.

Replying to Mr. HOBHOUSE, WITNESS said a great bulk of the members never took part in the proceedings of the British Medical Association and it was very easy to pass resolutions in which members were not particularly interested.

Mr. HOBHOUSE: Is this regarded as a burning question among medical people?

WITNESS: I should not say so.

Asked if he had anything to add WITNESS said it was stated the other day that the Incorporated Medical Practitioners' Society had passed a resolution in favour of the registration of nurses. That was the case, but the result was that a large number of members decided to resign and he believed the resolution was eventually rescinded.

Miss KENT, who said she had been engaged in nursing in the provinces and London for 13 years and was at one time night superintendent in a Dudley hospital, was called. She regarded registration as being most essential. It would safeguard the public and raise the status of the profession. A number of small nursing institutions were springing up all over the country which charged as much as 25 per cent. on the earnings of the nurses. They were managed by people who had no knowledge of, or sympathy with, nurses. They oppressed and sweated nurses.

The committee then adjourned.

BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, 8, Henrietta-street, Covent Garden, W.C.

Mucous Membranes, Normal and Abnormal, including Mumps and Malignancy. By Wm. Stuart-Low, F.R.C.S., Assistant Surgeon, Central London Throat Hospital. Price not stated.

DUCKWORTH AND CO., 3, Henrietta-street, W.C.

Metapsychical Phenomena, Methods, and Observations. By J. Maxwell, Doctor of Medicine, Deputy-Attorney-General at the Court of Appeal, Bordeaux, France. With a Preface by Charles Richet, Member of the Academy of Medicine, Professor of Physiology in the Faculty of Medicine, Paris, and an Introduction by Sir Oliver Lodge. Also with a New Chapter containing "A Complex Case," by Professor Richet, and an Account of "Some Recently Observed Phenomena," by the Translator, L. I. Finch. Price 10s. net.

FISCHER, GUSTAV, Jena.

Das Biologische Verfahren zur Erkennung und Unterscheidung von Menschen- und Tierblut, sowie anderer Eiweissubstanzen und seine Anwendung in der forensischen Praxis. Ausgewählte Sammlung von Arbeiten und Gutachten. Von Professor Dr. Uhlenhuth, Stabsarzt. Price M. 3.

LIVINGSTONE, E. AND S., 15, Teviot-place, Edinburgh.

Manual of Diseases of Children. By James Burnet, M.A., M.B., M.R.C.P. Edin., Registrar, and Assistant to the Extra Physician, Royal Hospital for Sick Children. Price 6s. 6d. net.

REBMAN, LIMITED, 129, Shaftesbury-avenue, W.C.

The Practice of Medicine. A Text-book for Practitioners and Students with Special Reference to Diagnosis and Treatment. By James Tyson, M.D., Professor of Medicine in the University of Pennsylvania and Physician to the Hospital of the University. Third edition, thoroughly revised, and in parts rewritten. Price 24s. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

BLAKISTON, ARTHUR ALEX., M.R.C.S., L.S.A., has been appointed Deputy Medical Officer for the Third District of the Wells (Somerset) Union.

BRIDGES, E. CHITTENDEN, M.D., B.S. Durh., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Anæsthetist to the Victoria Hospital for Children, Chelsea.

CUNNING, JOSEPH, M.B., B.S. Melb., F.R.C.S. Eng., has been appointed Assistant Surgeon to the Victoria Hospital for Children, Chelsea.

HEATON, CHARLES, M.D. Brux., M.R.C.S., L.R.C.P., has been appointed Honorary Assistant Visiting Surgeon to the Royal Sea-Bathing Hospital, Margate.

HOOPER, GEORGE HENRY JAMES, M.D. Lond., L.R.C.P. Lond., M.R.C.S., J.P., has been appointed Chairman of the Sutton (Surrey) District Council.

HOOPER, Miss E., M.B., B.S. Lond., has been appointed Resident Clinical Assistant to the Hospital for Women and Children, Leeds.

JOLLIE, P. OSWALD, L.R.C.P. & S. Edin., L.F.P. & S. Glasg., has been appointed Medical Officer and Poor-law Vaccinator for Colmonell, Ayrshire.

LOCK, JOHN LEWIS, M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Infirmary of the Uxbridge Union.

LYLE, H. WILLOUGHBY, M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Ophthalmic Surgeon to the Royal Bar Hospital, Soho, and Consulting Ophthalmic Surgeon to the Beckenham Cottage Hospital.

SARGENT, PERCY, M.A., M.B., B.C. Cantab., F.R.C.S. Eng., has been appointed Surgeon to Out-patients, Victoria Hospital for Children, Chelsea.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BETHLEM HOSPITAL.—Two Resident House Physicians, unmarried, for six months. Honorarium at rate of £25 per quarter, with board lodging, and washing.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, Birmingham.—Clinical Assistant. Honorarium at rate of 52 guineas per annum.

BODMIN, CORNWALL COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary £135 per annum, rising to £155, with board, lodging, &c.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN.—House Surgeon for six months. Salary £40, with board, lodging, and certain allowances.

CANCER HOSPITAL, Fulham-road, S.W.—Assistant House Surgeon for six months, renewable. Salary £70 per annum, with board and residence.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Clinical Assistant for three months.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance.

DARENTH, NEAR DARTFORD, METROPOLITAN ASYLUMS BOARD ASYLUM.—Senior Assistant Medical Officer, unmarried. Salary £250 per annum, rising to £300, with rations, lodging, attendance, and washing.

DUDLEY, THE GUEST HOSPITAL.—Honorary Surgeons.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House Physician and House Surgeon. Salary £80 respectively, with board, residence, and washing. Also Assistant House Surgeon. Salary £70, with board, residence, and washing. Also Eight Clinical Assistants.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—Assistant House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House Surgeon. Salary £120 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Assistant Physician. Also Anæsthetist, with honorarium of 15 guineas for one year.

INDIAN MEDICAL SERVICE, India Office, S.W.—Examination for not less than 14 Commissions.

KIRKBURTON, NEAR HUDDERSFIELD, STORTHES HALL ASYLUM.—Locum Tenens for July and August. Salary £3 3s. per week, with board, lodging, and attendance.

LEEDS UNION INSTITUTIONS, Beckett-street, Leeds.—Assistant Medical Officer, unmarried. Salary £130 per annum, rising to £150, with board, washing, apartments, and attendance.

LONDON TEMPERANCE HOSPITAL.—Assistant Resident Medical Officer for six months. Honorarium at rate of 50 guineas per annum, with board and residence.

MANSFIELD, NOTTINGHAMSHIRE CONSUMPTION SANATORIUM.—Resident Medical Officer (female). Salary £100 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, E.—Assistant Physician.

NORWICH, JENNY LIND INFIRMARY FOR CHILDREN, Unthank-road.—Resident Medical Officer (female). Salary £50 per annum, with board, residence, and laundry.

PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board and residence.

ROYAL EAR HOSPITAL.—House Surgeon, non-resident. Honorarium at rate of £40 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, West Strand, W.C.—Clinical Assistants for six months.

ST. GILES, CAMBERWELL, INFIRMARY, Brunswick-square, Camberwell, and WORKHOUSE, Gordon-road, Peckham.—Assistant Medical Officer. Salary £120 per annum, increasing to £130 per annum, with apartments, board, and washing.

ST. PETER'S HOSPITAL FOR STONE, &c., Henrietta-street, Covent Garden, W.C.—Out-patient Clinical Assistants for six months.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone-road, N.W.—Anæsthetist. Honorarium £20 per annum.

SCARBORO' HOSPITAL AND DISPENSARY.—Junior House Surgeon, for six months. Salary £80 per annum, with board and residence.

SOUTHWARK UNION INFIRMARY, East Dulwich-grove, S.E.—Assistant Medical Superintendent. Salary £150 per annum, with apartments, board, and washing.

STAFFORD, STAFFORDSHIRE GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, lodging, and washing.

TOTTENHAM HOSPITAL, London, N.—Casualty Officer for six months. Salary at rate of £40 per annum, with residence, board, and laundry.

WELLS, SOMERSET AND BATH ASYLUM.—Second Assistant Medical Officer. Salary £130, rising to £150 per annum, with board, lodging, washing, and attendance.

WINSLEY, NEAR BATH, SANATORIUM FOR POORER CONSUMPTIVES.—Resident Medical Officer, unmarried. Salary £300, rising to £300.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of a vacancy as Certifying Surgeon under the Factory and Workshop Act at New Ross, in the county of Wexford.

Births, Marriages, and Deaths.

BIRTHS.

BATEMAN.—On May 19th, at Avenue-road, Regent's-park, N.W., the wife of A. George Bateman, M.B., C.M., of a daughter.

CARRUTHERS.—On May 11th, at Manor-house, Bathcaston, the residence of her father, the wife of Alan Eskrigge Carruthers, M.A., M.B. Cantab., of a daughter.

FISH.—On May 20th, at Llanbedr Hall, Ruthin, North Wales, the wife of Cecil E. Fish, B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., of a son.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE STORY OF THE ST. HELENS HOSPITAL.

ACCOMPANYING the annual report of the St. Helens Hospital for the year 1904 is an illustrated pamphlet dedicated to the memory of "Doctor Herbert Knowles," giving the story of that useful institution compiled from articles which have appeared in the public press. 35 years ago there was no hospital in St. Helens, though the need for some place where the sick poor could be adequately treated was felt by many. On the suggestion of Mr. A. G. Kurtz, Mr. J. Fenwick Allen sought out a suitable building which within three months was transformed into a hospital with four beds. The first patient was a farm labourer, the conditions of his admission being the payment of a shilling a day and that his own medical man should attend him. Mr. Allen became the first honorary secretary. How the hospital gradually grew to its present size with accommodation for 100 patients and with everything necessary for their proper treatment and comfort and the building of a nurses' home is sympathetically told in the pamphlet under notice, which is embellished with portraits of many prominent individuals connected with the history of the hospital. The illustrations of the operation room and sterilising room show that the hospital has been equipped with the most modern appliances. The cost of enlarging and furnishing the hospital has amounted to about £22,500 and this sum has been met to the extent of £18,680 by some large subscriptions and by the generosity of working men, leaving a balance of nearly £4000 still to be provided. The management of this institution seems to be equally satisfactory to both medical men and their patients from the account given of the working of the hospital in the annual report, though to our mind the absence of a resident medical officer is not to be regarded as a safe condition of things unless there is some stipulation that cases of great emergency will not be received. The conditions of admission are aimed at solving some of the problems of hospital economy and are worth studying. I. Every patient must contribute one shilling a day towards the funds of the hospital during the time he remains in, or have been a regular subscriber of one penny per week (or one halfpenny in the case of women and children) previous to the commencement of the sickness or date of the accident which causes him to seek admission. II. At the works where a penny-a-week subscription is made the workmen will be allowed the extra advantage of the admission of their wives and children under 13 years of age, free of charge, provided there be not more than one of a family in the hospital at a time. III. Accidents are admitted at all times. IV. Every patient selects and pays for his own medical man. V. Cases of sickness must be recommended by a medical man as suitable. VI. Patients admitted to the hospital as penny-a-week subscribers, or as members of the family of any such subscriber, will be sent to the Southport Convalescent Hospital, the Devonshire Hospital, Buxton, and the Eye and Ear Infirmary, Liverpool, free of charge to them, whenever the medical attendant considers it desirable that they should be sent there. VII. Patients for the Eye and Ear Infirmary, Liverpool, must procure certificates, one from a medical man and another from the works where they pay their subscriptions, and attend at the hospital for instructions. The permission to the patient to choose his own medical man, which clearly follows on the condition that he should pay him, puts the hospital at once in a different position from that occupied by the ordinary charitable institution. But is not the danger likely to occur that the patient, though assisted by charity and attended by medical men at the lowest possible cost, may believe that he is only receiving a due return for his pence?

A QUESTION OF ETHICS.

To the Editors of THE LANCET.

SIRS,—I shall be greatly obliged for your opinion on the following case. A is practising in a town. B is also practising in a village about seven miles away. A has been in practice about 19 years. B has been in practice about three years. A has a patient whom he used to attend before B came to the neighbourhood but on B's arrival the patient employs B and soon the patient asks A to meet B in consultation, which he does on two occasions. In a few weeks after the second consultation the patient sends to A saying he has finished with B and wants A to attend him, saying at the same time that if A refuses he is going to employ another medical man from the town. Now is A correct in accepting his old patient again as his ordinary medical man? Both A and B are general practitioners.

I am, Sirs, yours faithfully,

May 22nd, 1905. M.D.

*** The point upon which our correspondent invites our opinion is practically the same as that with which we dealt in our issues of April 29th, p. 1174, and May 6th, p. 1243, and he will find our opinion stated there. It must be remembered that a patient has the right to change his medical man as often as he likes. If the patient has given up wishing for B's attendance and if A refuses to attend the patient will evidently call in C, when the same question will arise. We therefore see no objection to A resuming attendance.—ED. L.

HOW A CHOLERA EPIDEMIC WAS STARTED.

Major Sykes, British Consul at Kerman, writes in his report for 1904-05: "For the first time since my residence in Kerman cholera broke out. A pilgrim returned from Meshed and died from cholera a few miles out of Kerman. His body was washed in running water and his clothes were sent into Kerman and sold, thus starting the epidemic. The entire Persian official community ran away, followed by everyone who could procure a mount, and as a result the villages were immediately affected. Business was at an utter standstill and the only bright side was the heroic labours of the medical men of the Church Missionary Society who fought the epidemic single-handed. Fortunately, the cold weather was near and by the end of December, after having run its course for about two months, with a loss of life aggregating perhaps 500, the epidemic ceased. Two salient points were brought out—viz., the necessity of providing properly trained Persian doctors and also the equal necessity of training the people to obey a few simple regulations for the preservation of their health."

THE BORIC ACID OF TUSCANY.

In the course of a special report on the mineral wealth of the provinces of Siena and Grosseto, Mr. Chapman, the British Consul-General in Italy, mentions that a remarkable natural phenomena occurring in Tuscany are the "soffioni," or "blowers," which are to be seen in the neighbourhood of Pomarance. These emit steam and water at a very high temperature, as much as 257° F. it is said, with a noise similar to that of steam escaping from a boiler under very high pressure. In the year 1779 two savants of the period, Mascagni and Hoefer, in the course of their investigations into the nature of the curious phenomena, discovered that boric acid was present in the waters ejected by the "blowers." At the time the discovery was considered to have merely a scientific interest, but in the year 1818 it occurred to certain speculators, with M. Larderel, a native of France, at their head, that the recovery of the boric acid might be a profitable venture and works for this purpose were established on a small and tentative scale. To effect the evaporation of the waters and to recover the boric acid present artificial heat was adopted. But the process, for this reason, was not a success, the cost of fuel in a district bare of forests was found to be excessive. In the year 1825 the works and concessions were taken over entirely by M. Larderel and they have since remained in the same family. The financial success of this undertaking began to date from 1827, when M. Larderel solved the problem by applying the natural heat of the sources to the evaporation of the waters collected in boilers or tanks. This industry enjoyed remarkable prosperity during a period of about 40 years when both the producers and the parties to whom they sold their output for a term of years obtained practically their own prices. But the discovery of borax in California and Chili and of boracite on the borders of the Sea of Marmora brought about a great change in this respect. The Tuscan industry, however, holds its own and with an increasing consumption of this substance all over the world the outlook is more favourable now than it has been for some years past. The production of boric acid in Tuscany averages about 2700 tons per annum of the approximate value of £54,000.

"CHINOSOL COMPRESSED TABLETS."

In our analytical notices last week it was incorrectly stated that the chinosol tablets mentioned contained five *grammes* of the pure powder. The quantity should have been reported as five *grains*.

AN OLD LANCET CASE.

To the Editors of THE LANCET.

SIRS,—I have recently come across an old silver lancet case which, so far as can be judged from the somewhat obliterated hall-marks, is of the date 1796-96, and perhaps Sheffield was the assay office. It bears on it the initials, doubtless of its original owner, "C.F.S." It contains two lancets, and the chief reason why I venture to trouble you with this communication is that I am desirous of knowing whether these lancets are contemporary with the case or of modern date. One of them bears as the name of the makers "Savigny & Co." and the other "Pratt." Perhaps some of your readers can kindly give me information as to these makers. I do not see the names in the list of surgical instrument makers in the Post Office Directory but, of course, that does not prove that the firms are not now in existence.

I am, Sirs, yours faithfully,

May 24th, 1905. PROVENANCE.

A. G.—How an "overworked doctor in hidden-away districts" comes to "want keeping up to his duty" passes our understanding. The man who already does more work than he ought cannot need spurring to do more; at any rate, no wise person would suggest the treatment. Patients with typhoid fever who are in poor circumstances can in London very seldom be nursed in their own homes.

Lanceiot.—The regulations concerning the carriage of medicine by rural postmen are laid down in Clause 21 of the general regulations published in the Postal Guide. The Postmaster-General can withdraw the permission either generally or in any particular case, but we have no knowledge of its having been withdrawn so far.

General Practitioner.—Our correspondent sends us a report of what we presume was a public meeting and the matter to which he draws attention formed a portion of the report read at the meeting in question. In these circumstances we do not consider that the question of advertising can arise.

Tenash.—From the information which our correspondent has sent us we do not think that there would be any objection to the marriage of the children in question, presuming, of course, that they exhibit no mental instability as they grow up.

B.Sc. would like to be referred to any book containing a clear account of the different theories of the numerous writers on Evolution since Darwin, also to the works of Mendel, Weismann, Beard, Bateson, and Weldon.

B. S.—The preparation mentioned by our correspondent contains bromides. These salts are, of course, very commonly given for epilepsy but they should certainly not be so given except under medical supervision.

Hector.—The same precaution should be taken with regard to diphtheria as with other infectious diseases.

W.—Our correspondent will find our opinion of Liquosone at p. 1309 of THE LANCET of May 13th.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (29th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (30th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.).

WEDNESDAY (31st).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.) Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.).

THURSDAY (1st).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynecological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.).

FRIDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Royal Ear (10 A.M.).

SATURDAY (3rd).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (29th).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (20, Hanover-square, W.).—7 P.M. Council. 8 P.M. Communication:—Mr. J. Murray: A Case of Odontome (illustrated with specimen, lantern slide, and microscopic section). Paper:—Dr. W. D. Miller (Berlin): Some Studies on the Anatomy of the Teeth and their Practical Application (illustrated by slides shown by means of the epidiascope).

TUESDAY (30th).—MEDICO-LEGAL SOCIETY (Rooms of the Royal Asiatic Society, 22, Albemarle-street, W.).—8.15 P.M. Discussion on Some Notes upon Suicide (opened by Dr. W. W. Westcott).—Discussion on Feeling and Emotion in Eastern and Western Psychology, their bearing on Crime and Insanity (opened by Dr. Louise Appel.

WEDNESDAY (31st).—BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—5 P.M. General Meeting. Election of President, Officers, and Council for the Year commencing October, 1905. 5.30 P.M. Ordinary Meeting. Address:—Dr. W. Murray: The Limitations of Treatment. 7.30 P.M. Annual Dinner at the Criterion Restaurant, followed by a Smoking Concert.

THURSDAY (1st).—NORTH-EAST LONDON CLINICAL SOCIETY (Tottenham Hospital, N.).—4 P.M. Clinical Cases.

FRIDAY (2nd).—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases and Specimens will be shown by Dr. StClair Thomson, Dr. Waggett, Dr. A. Thorne, Dr. Kelson, Mr. de Santi, and others.

SATURDAY (3rd).—OTOLOGICAL SOCIETY OF THE UNITED KINGDOM (Manchester).—10 A.M. Extra-Metropolitan Meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (29th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. J. J. Pringle: Clinique. (Skin.) 5.15 P.M. Dr. J. Taylor: Some Acute Nervous Diseases in Early Life.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Saunders: Mental Deficiency in Children (with cases).

NORTH EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Lecture-Demonstration:—Dr. A. J. Whiting: Central and Peripheral Lesions of the Spinal Cord.

TUESDAY (30th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. G. Rankin: Clinique. (Medical.) 5.15 P.M. Dr. J. M. H. MacLeod: The Treatment of Acne Vulgaris.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Hood: Clinical Aspects of Pneumonia.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury, W.C.).—3.30 P.M. Dr. Ormerod: Hysteria.

WEDNESDAY (31st).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. A. H. Tubby: Clinique. (Surgical.) 5.15 P.M. Dr. G. A. Sutherland: Pneumonia in Children.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. Jones: Question of Insanity from the Standpoint of the Medical Practitioner.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Lecture:—Dr. A. Latham: Pleurisy and its Relation to Tuberculosis.

HURSDAY (1st).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Dr. J. Morrison: Some Practical Points concerning the Use of Midwifery Forceps.

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Keetley: On Injuries of the Elbow.

HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Lecture:—Dr. Poynton: Combined Mitral and Aortic Disease.

CHARING CROSS HOSPITAL.—4 P.M. Dr. Galloway: Demonstration of Dermatological Cases. (Post-Graduate Course.)

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Lecture:—Mr. Doran: Surgical Anatomy of the Pelvis in the Female.

FRIDAY (2nd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. R. Lake: Clinique. (Ear.)

POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. C. Williams: Finsen, Ultra-violet, and other Methods of Photo-therapy (illustrated by lantern slides.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury, W.C.).—3.30 P.M. Mr. Ballance: Surgery of the Nervous System.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will ensure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

The rates of subscriptions, post free, either from THE LANCET Offices or from Agents, are:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, MR. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

SUBSCRIBERS ABROAD ARE PARTICULARLY REQUESTED TO NOTICE THE RATES OF SUBSCRIPTIONS GIVEN ABOVE. It has come to the knowledge of the Manager that in some cases higher rates are being charged, on the plea that the heavy weight of "THE LANCET necessitates additional postage above the ordinary rate allowed for in the terms of subscriptions. Any demand for increased rates, on this or on any other ground, should be resisted. The Proprietors of THE LANCET have for many years paid, and continue to pay, the whole of the heavy cost of postage on overweight foreign issues; and Agents are authorised to collect, and do so collect, from the Proprietors the cost of such extra postage.

The Manager will be pleased to forward copies direct from the Offices to places abroad at the above rates, whatever be the weight of any of the copies so supplied. Address—THE MANAGER, THE LANCET OFFICES, 423, STRAND, LONDON, ENGLAND.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 25th, 1905.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Rainfall	Solar Radiation Temp.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
May 19	30·06	N.E.	0·03	116	66	48	50	53	Cloudy
,, 20	29·96	N.E.	0·10	107	61	46	48	49	Raining
,, 21	30·01	N.E.	...	59	54	45	44	48	Overcast
,, 22	29·98	N.E.	...	107	54	40	41	46	Cloudy
,, 23	30·01	N.E.	...	116	56	38	41	48	Cloudy
,, 24	29·87	W.	...	81	62	43	45	49	Overcast
,, 25	29·96	S.W.	...	93	63	48	53	58	Fine

During the week marked copies of the following newspapers have been received:—*Cornish and Devon Post, Morning Leader, Gloucester Journal, Yorkshire Herald, Edinburgh Evening Dispatch, Globe, Leeds Weekly Mercury, Notts Guardian, Darlington Echo, Bradford Argus, Freeman's Journal, Liverpool Courier, Literary Digest, Daily Chronicle, Liverpool Post and Mercury, Windsor and Eton Express, Newcastle Daily Chronicle, Newcastle Journal, Westminster Gazette, Reading Mercury, Mining Journal, Surrey Advertiser, &c.*

Communications, Letters, &c., have been received from—

A.—Dr. Henry Ashby, Manchester; Authors' Association, Darlington, Secretary of; *American Practitioner*, Louisville, Editor of; Apollinaris Co., Lond.; A. S. M.

B.—Mr. W. H. Brown, Leeds; Mr. J. C. O. Bradbury, Folkestone; Bristol Medico-Chirurgical Society, Hon. Secretary of; Dr. Joseph Favil Biehn, Chicago; Messrs. J. Bercut and Co., Paris; Mr. J. A. Bartlett, Bristol; Mr. R. H. Beaman, Offord; Rev. L. Bost, Salies de Béarns; Messrs. Bates, Hendy, and Co., Reading; Messrs. Burroughs Wellcome and Co., Lond.; Dr. Bronislaus Barthkiewicz, Warsaw; Mr. John M. Bryan, Northampton; Mr. Tom Bird, Lond.; Dr. P. Bergouignan, Evian.

C.—Messrs. Cossnza and Co., Lond.; Chinosol Hygienic Co., Lond.; Messrs. T. Christy and Co., Lond.; *Chester Courant*, Chester, Manager of; Messrs. J. and A. Churchill, Lond.; Dr. Mary Coghill-Hawkes, Lond.; Messrs. Cockburn and Co., Lond.; Dr. W. M. Crofton, Booterstown; Dr. Charles G. Cumston, Boston, Massachusetts; Cheltenham Corporation, Clerk of; C. J. J. H.; Crookabury Sanatorium, near Farnham, Medical Superintendent of.

D.—Mr. W. Darby, Lond.; Major H. N. Dunn, R.A.M.C., Woolwich; Mr. T. Dixon, Lond.; *The Doctor*, Giyranwala, India, Manager of; Messrs. De Vere and Co., Lond.

E.—Edmonton, Medical Officer of Health of; The Electromobile Co., Lond.

F.—Mr. Roger H. Fuller, Ditton Hill; Messrs. T. Fletcher and Son, Birmingham; Messrs. W. Forster and Son, Lond.; F. W. P.

G.—Mr. A. C. Grylls, Lond.; Messrs. C. Griffin and Co., Lond.; Grimsby and District Hospital, Secretary of; Messrs. W. Green and Sons, Edinburgh.

H.—Mr. E. J. Howell, Surbiton; Messrs. Hastings Bros., Lond.; Hastings, Town Clerk of; Dr. F. Strong Heaney, Blackpool; Hull Royal Infirmary, Secretary of; Mr. T. H. Holding, Lond.; Mr. W. B. Heyward, Carlton, Australia; Mr. J. Howard-Jones, Newport, Mon.; Mr. F. R. Humphreys, Lond.; Dr. P. J. Hay, Birmingham; Mr. H. A. Hawkins, Lond.

J.—Dr. Robert Jones, Claybury; Dr. Boyd Joll, Ealing; Jenny Lind Infirmary, Norwich, Hon. Secretary of; Dr. Kalkhusru Jivanji, Secunderabad; Mr. L. J. Jarvis, Lond.

K.—Dr. W. B. de Korté, Lond.; Miss Kerr, Rotorua, New Zealand; Mr. D. S. Kemp, Lond.

L.—Mr. L. Lowenthal, Lond.; Mr. A. Lemonnier, Marseilles; Leeds Union, Clerk of; Local Government Board for Scotland, Edinburgh, Secretary of; Mr. H. H. Loveday, Littleover; London Publicity Co.

M.—Mr. J. Mackintosh, Halifax; Mr. Geoffrey Morgan, Stafford; Mr. D. C. Mackenzie, Lond.; Mr. W. K. McDermott, Lond.; Dr. J. F. Macdonald, Govan; Messrs. Matthews Bros., Lond.; Maltine Manufacturing Co., Lond.; Messrs. Millward, Bradbury and Co., Liverpool; Medical Defence Union, Lond.; Dr. E. J. Maclean, Cardiff; Mr. E. Merck, Darmstadt; *Manchester Weekly Times*, Lond., Editor of; Mendip Hills Sanatorium, Wells, Secretary of; Manchester Medical Agency; M. L. G.

N.—Mr. P. T. Nicholls, Sheerness; North Staffordshire Infirmary, Stoke-on-Trent, Secretary of; National Service League, Lond., Secretary of; Mr. J. C. Needes, Lond.; Mr. H. Needes, Lond.

O.—Messrs. Ornstien Bros., Lond.; Dr. Thomas Oliver, Newcastle-on-Tyne; Mr. R. A. O'Brien, Cairns, Australia; Optical Convention, Teddington, Hon. Secretary of.

P.—Mr. Y. J. Pentland, Edinburgh; Mr. W. Postlethwaite, Leeds; Messrs. Peacock and Hadley, Lond.; Mr. E. Pennington, Richmond; Pietermaritzburg Laboratory, Director of the.

Q.—Queen's Hall Orchestra, Lond., Manager of.

R.—Dr. T. Robinson, Lond.; Messrs. Reynell and Son, Lond.; Captain F. G. Richards, R.A.M.C., Lond.; Messrs. E. J. Reid and Co., Lond.; Royal Devon and Exeter Hospital, Secretary of.

S.—Dr. Harold Scofield, Lond.; Smith's Advertising Agency, Lond.; Saarbach's News Exchange, Mainz; Dr. P. Blaikie Smith, Alford; Somerset and Bath Asylum, Wells, Secretary of; Messrs. Sale and Co., Manchester; Messrs. Smith, Elder, and Co., Lond.; South Devon and East Cornwall Hospital, Plymouth, Secretary of; Dr. Bernard S. Story, Kaikoura, New Zealand; Messrs. Swift and Son, Lond.; Mr. Harold S. Sington, Lond.; Dr. Gordon Sharp, Leeds; Salford, Medical Officer of Health of; Mrs. S. E. Sutcliffe, Bolton; Scholastic, Clerical, &c., Association, Lond.; Scrutator.

T.—Dr. C. J. Thomas, Lond.; Ternuh.

V.—Mr. M. Vaughan, Freiburg; Veritas.

W.—Mr. M. Walsh, New Ross; Messrs. W. Wood and Co., New York; Wills, Ltd., Lond.; Mr. Samuel Walker, Middlesbrough; W.; Dr. W. H. Willcox, Lond.; Dr. Arthur C. Wilson, Formby; Mr. H. J. Waring, Lond.; Professor Sims Woodhead, Cambridge; Mr. B. Whitehead, Lond.; Dr. J. Curtis Webb, Lond.; Mr. P. W. Walker, Birmingham; West Riding Asylum, Kirkburton, Clerk of.

X.—X., Lond.

Y.—Dr. I. C. Young, Louisville.

Z.—Messrs. A. and M. Zimmermann, Lond.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. F. C. Angear, Chatham; Messrs. C. Ash and Sons, Lond.; Mr. G. Aldridge, Sheerness; Aerators, Ltd., Lond.; A. F. C.; Mr. E. Arnold, Lond.; A. W. B.; A. E. L.

B.—Mr. J. E. L. Bates, Lond.; Bishopstone House, Retford, Medical Superintendent of; Mr. C. Birchall, Liverpool; Birkenhead Borough Hospital, Treasurer of; Dr. S. K. Basu, Kashimpore, India.

C.—Dr. R. Counihan, Kilrush; Messrs. Condy and Mitchell, Lond.; Mr. A. M. Cato, Lond.; C. F. G.; C. E. W.; C. A. C.; C. N. S.; Canterbury Borough Asylum, Clerk of; Mr. F. W. Clarke, Chorlton-cum-Hardy; Messrs. Callard and Co., Lond.

D.—Messrs. Down Bros., Lond.; Mrs. Davis, Lond.; Denver Chemical Manufacturing Co., Lond.; Mrs. Dyott, Lichfield; Doctor, Sharnbrook; Doctor, Manor Park.

E.—Mr. F. Eder, Lond.

F.—Dr. John Fawcett, Lond.; Mr. J. V. W. Freer, Stourbridge; F. L.; Dr. J. K. Fowler, Lond.; Mr. C. E. Fish, Edinburgh; F. C. A.; F. R. M.

G.—Mr. P. L. Giuseppi, Lond.; Mr. D. R. D. Guzdur, Bombay; Mr. D. H. Goodsall, Lond.; Messrs. Gilyard Bros., Bradford; Mr. E. Gooch, Lond.; Mrs. Gillies, Basdale.

H.—Mr. J. Heywood, Manchester; *Harrogate Herald*, Manager of; Messrs. Hodder and Stoughton, Lond.; R. F. W.; Mr. W. B. Harley, Hove; Dr. W. N. Heard, Lond.

J.—Mr. W. R. W. James, Lond.; Mr. G. M. Jones, Alton; J. G.; J. T.; J. L. C.; Jenner Institute for Calf Lymph, Lond.; J. M.

L.—Mr. H. K. Lewis, Lond.; Miss Lysaght, Mallow; L. F. W.; Locum, Lond.

M.—Mr. W. Morris, Wallsend; Mr. J. B. Mitchell, Hong-Kong; Messrs. C. Mitchell and Co., Lond.; Mr. R. Mosse, Berlin; Dr. F. S. Mackenzie, York; Mr. G. B. McKean, Lond.; Messrs. Moore and Co., Lond.; Medicus, Beaconsfield; M. D., Wooburn Green; M. S. M. D.; Messrs. J. Maythorn and Sons, Biggleswade.

N.—Mr. J. W. Norman, Minehead; Nottingham General Hospital, Secretary of; Mr. B. Nicol, Lond.

P.—Mr. W. H. Parry, Rhosneigr.

R.—Dr. J. W. Russell, Birmingham; Royal Institute of Public Health, Lond., Secretary of; Messrs. Raimes and Co., Lond.; Dr. W. B. Ransom, Nottingham; R., Market Drayton; Messrs. Rippon, Boswell, and Whitaker, Exeter.

S.—Dr. F. W. Saunders, Newbury; Messrs. Schroeder and Co., Lond.; Scarborough Hospital, Hon. Secretary of; Messrs. Saward, Baker, and Co., Lond.; S. J.; Mr. D. P. Stewart, Londonderry; Messrs. Squire and Sons, Lond.; Mr. P. Swansegar, Wairoa, New Zealand; Sunshine, Chislehurst; Dr. S. Simpson, Gilwern; Mr. N. S. Sodhi, Edinburgh; Dr. I. S. Stewart, Banchory; Messrs. Spiers and Pond, Lond.; St. John Ambulance Association, Lond.

T.—Mr. J. Taylor, Liverpool; Messrs. Tanqueray, Gordon, and Co., Lond.; Lieutenant W. Tyndale, Dinapore, India; Mr. J. Thin, Edinburgh; Messrs. Truelove and Hanson, Lond.; Mr. J. B. D. Thomas, Neath; Mr. A. G. Tribe, Treorchy; Captain R. G. Turner, I.M.S., Etawah, India; T. M. D.; T. D.; T. P. G.

U.—University of Birmingham, Registrar of.

V.—Dr. A. Vance, Lond.; Miss Vardon, Torrington.

W.—Mr. A. O. Way, Romsey; Mrs. Winsloe-Phillips, Torquay; W. W.; Mr. Wimble, Beaconsfield; W. W. N.; W. Q. R.; Messrs. Wilcox and Co., Lond.; W. E. T.; W. B. S.; Messrs. Wheatley, Dyson, and Son, Huddersfield; Miss H. Walker, Lond.; *Wilts County Mirror*, Salisbury.

Y.—Miss L. Yates, Lond.

EVERY FRIDAY.

THE LANCET.

PRICE SEVENPENCE.

SUBSCRIPTION, POST FREE.

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 12 6	One Year	£1 14 8
Six Months	0 16 3	Six Months	0 17 4
Three Months	0 8 2	Three Months	0 8 8

Subscriptions (which may commence at any time) are payable in advance.

ADVERTISING.

Books and Publications ...	Seven Lines and under	£0 5 0
Official and General Announcements	Ditto	0 5 0
Trade and Miscellaneous Advertisements and Situations Vacant ...	Ditto	0 4 6
	Every additional Line	0 0 6

Situations wanted: First 30 words, 2s. 6d.; per additional 8 words, 6d.
Quarter Page, £1 10s. Half a Page, £2 15s. An Entire Page, £5 5s.

An original and novel feature of "THE LANCET General Advertiser" is a Special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to advertisements appearing in THE LANCET.

The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 31 Rue Bapte, Asnieres, Paris.